



# United States Department of the Interior

BUREAU OF OCEAN ENERGY MANAGEMENT

WASHINGTON, DC 20240-0001

MAY 7 2015

Ms. Susan Parker  
Town of Sunset Beach  
700 Sunset Boulevard  
Sunset Beach, North Carolina 28468

Dear Ms. Parker:

On August 7, 2014, the Bureau of Ocean Energy Management (BOEM) announced the identification of three Wind Energy Areas (WEAs) located within federal waters offshore North Carolina. Designated in consultation with the North Carolina Renewable Energy Task Force, these WEAs represent areas of the Outer Continental Shelf (OCS) that appear most suitable for commercial wind energy activities, while presenting the fewest apparent environmental and user conflicts.

BOEM has determined that issuing commercial leases within the WEAs offshore North Carolina constitutes an undertaking subject to Section 106 of the National Historic Preservation Act (54 U.S.C. 306108), and its implementing regulations (36 CFR § 800) and that the subsequent site characterization activities associated with commercial lease issuance (e.g., shallow hazards, geological, geotechnical, and archaeological resource surveys) constitute activities that have the potential to cause effects to historic properties.

BOEM initiated Section 106 consultation October 8, 2014, and shared the bureau's preliminary findings with the consulting parties through email, meetings, and a webinar held April 23, 2015. As a result of this consultation, BOEM has prepared a finding of *No Historic Properties Affected* under 36 CFR § 800.4 (d)(1) and in fulfillment of Stipulation I.E of the Programmatic Agreement among BOEM, the North Carolina State Historic Preservation Officer, and the Advisory Council on Historic Preservation.

BOEM is notifying all consulting parties and providing documentation of this finding, see enclosed. Should you, or your representative, have any questions about this undertaking you may contact me directly at (703) 787-1549 or [William.Hoffman@boem.gov](mailto:William.Hoffman@boem.gov). Any correspondence may also be sent to the following address:

Department of the Interior  
Bureau of Ocean Energy Management  
Office of Renewable Energy Programs  
45600 Woodland Road, VAM-OREP  
Sterling, VA 20166

Thank you in advance for your involvement.

Sincerely,

A handwritten signature in dark ink, appearing to read 'W. Hoffman', followed by a long horizontal line.

William Hoffman  
Archaeologist  
Office of Renewable Energy Programs

Enclosure:

Finding of No Historic Properties Affected for the Issuance of Commercial  
Leases within the Kitty Hawk, Wilmington East, and Wilmington West Wind  
Energy Areas for Wind Energy Development on the Outer Continental Shelf  
Offshore North Carolina

**Finding of No Historic Properties Affected  
For the  
Issuance of Commercial Leases within the  
Kitty Hawk, Wilmington East, and Wilmington West Wind Energy Areas  
For Wind Energy Development on the Outer Continental Shelf Offshore  
North Carolina**

**Finding**

The Bureau of Ocean Energy Management (BOEM) has made a Finding of No Historic Properties Affected for this undertaking. Through lease stipulations, BOEM will require lessees to avoid, during geotechnical testing (i.e., ground disturbing) activities, any potential historic properties identified through high-resolution geophysical surveys.

**Documentation in Support of the Finding**

**I. Description of the Undertaking**

Summary

This document describes BOEM's compliance with Section 106 of the National Historic Preservation Act and documents the agency's finding of No Historic Properties Affected (Finding) under 36 CFR § 800.4 (d)(1) for the undertaking of issuing commercial leases within the North Carolina Wind Energy Areas (WEAs). BOEM has prepared this documentation in support of the Finding following the standards outlined at 36 CFR § 800.11(d) and as fulfillment of Stipulation I.E. of the Programmatic Agreement among BOEM, the North Carolina State Historic Preservation Officer (SHPO), and the Advisory Council on Historic Preservation (ACHP). This Finding and supporting documentation are being provided to the North Carolina SHPO and the ACHP as signatories to this agreement, as well as to the South Carolina SHPO, the Catawba Indian Nation, National Park Service (NPS), Outer Banks Conservationists, Inc., and local governments who are consulting parties to this undertaking. This Finding and supporting documentation will be made available for public inspection by placement on BOEM's public website prior to BOEM approving the undertaking.

Federal Involvement

The Energy Policy Act of 2005, Pub. L. No. 109-58, added Section 8(p)(1)(C) to the Outer Continental Shelf Lands Act, which grants the Secretary of the Interior the authority to issue leases, easements, or rights-of-way on the Outer Continental Shelf (OCS) for the purpose of renewable energy development, including wind energy development. *See* 43 U.S.C. § 1337(p)(1)(C). The Secretary delegated this authority to the former Minerals Management Service, now BOEM. On April 22, 2009, BOEM promulgated final regulations implementing this authority at 30 CFR Part 585.



Under the renewable energy regulations, the issuance of leases and subsequent approval of wind energy development on the OCS is a staged decision-making process. BOEM's wind energy program occurs in four distinct phases, as described below.

- *Planning and Analysis.* The first phase is to identify suitable areas to be considered for wind energy leasing through collaborative, consultative, and analytical processes; including input from the North Carolina Renewable Energy Task Force, public information meetings, and other stakeholders.
- *Lease Issuance.* The second phase, issuance of a commercial wind energy lease, gives the lessee the exclusive right to subsequently seek BOEM approval for the development of the leasehold. The lease does not grant the lessee the right to construct any facilities; rather, the lease grants the lessee the right to use the leased area to develop its plans, which must be approved by BOEM before the lessee can move on to the next stage of the process (see 30 CFR § 585.600 and § 585.601).
- *Approval of a Site Assessment Plan (SAP).* The third stage of the process is the submission of a SAP, which contains the lessee's detailed proposal for the construction of a meteorological tower, installation of meteorological buoys, or a combination of the two on the leasehold. The SAP allows the lessee to install and operate site assessment facilities for a specified term. The lessee's SAP must be approved by BOEM before it conducts these "site assessment" activities on the leasehold. BOEM may approve, approve with modification, or disapprove a lessee's SAP (see 30 CFR § 585.605–585.618).
- *Approval of a Construction and Operation Plan (COP).* The fourth stage of the process is the submission of a COP, a detailed plan for the construction and operation of a wind energy project on the lease. A COP allows the lessee to construct and operate wind turbine generators and associated facilities for a specified term. BOEM approval of a COP is a precondition to the construction of any wind energy facility on the OCS. As with a SAP, BOEM may approve, approve with modification, or disapprove a lessee's COP (see 30 CFR § 585.620–585.638).

The regulations also require that a lessee provide the results of surveys with its SAP and COP for the areas affected by the activities proposed in each plan (see 30 CFR § 585.610(b) and § 585.626, respectively), including the results of a shallow hazards survey, geological survey, geotechnical investigation, and archaeological resource identification survey. BOEM refers to these surveys as "site characterization" activities and provides guidelines for conducting these surveys and submitting their results as part of a SAP or COP. See *Guidelines for Providing Geological and Geophysical, Hazards, and Archaeological Information Pursuant to 30 CFR Part 585* at: <http://www.boem.gov/Renewable-Energy/Historic-Preservation-Activities>, which advise lessees to survey the entirety of the area they propose to impact.



On August 7, 2014, BOEM announced the identification of three WEAs located within federal waters offshore North Carolina (Appendix A). Designated in consultation with the North Carolina Renewable Energy Task Force, these WEAs represent areas of the OCS that appear most suitable for commercial wind energy activities, while presenting the fewest apparent environmental and user conflicts. BOEM is now reviewing the potential environmental consequences of leasing and site assessment activities under the National Environmental Policy Act through the preparation of an Environmental Assessment.

BOEM has determined that issuing commercial leases within the WEAs offshore North Carolina constitutes an undertaking subject to Section 106 of the National Historic Preservation Act (54 U.S.C. 306108), and its implementing regulations (36 CFR § 800) and that the subsequent site characterization activities associated with commercial lease issuance (e.g., shallow hazards, geological, geotechnical, and archaeological resource surveys) constitute activities that have the potential to cause effects to historic properties.

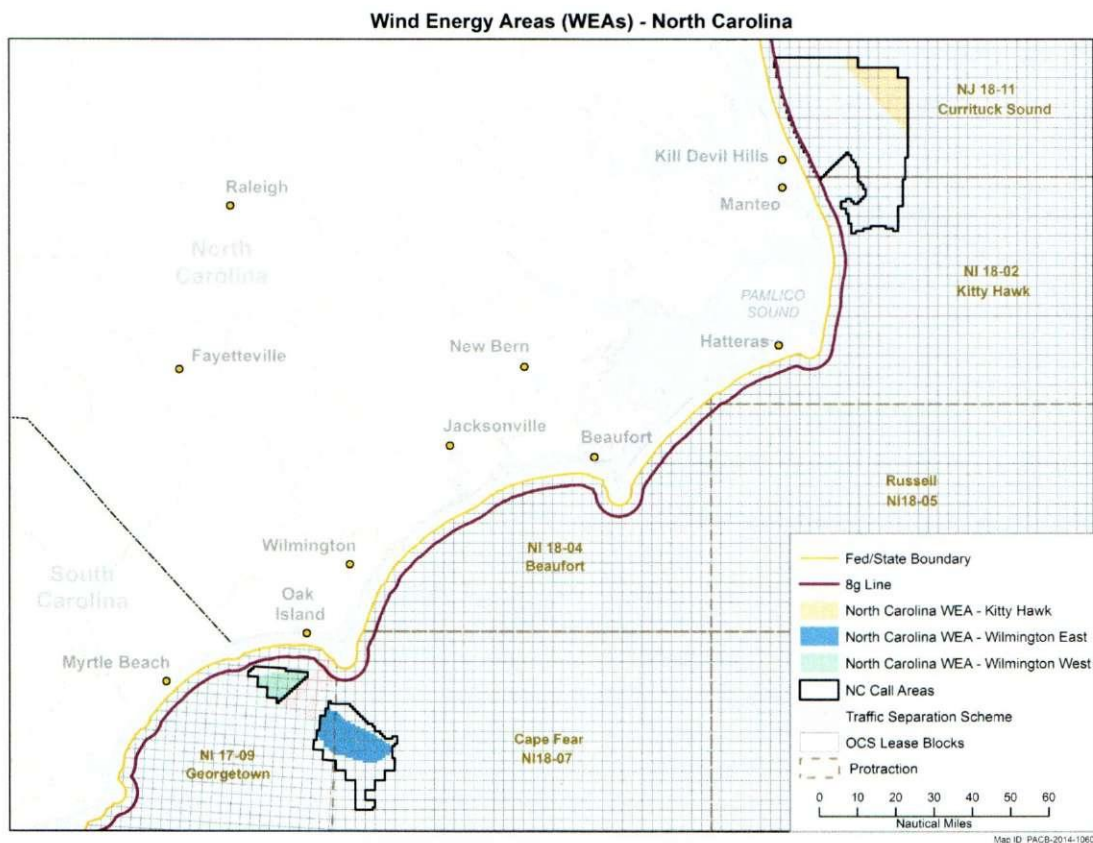
BOEM has implemented two Programmatic Agreements pursuant to 36 CFR § 800.14(b) to fulfill its obligations under Section 106 of the National Historic Preservation Act for renewable energy activities on the OCS offshore the South Atlantic states. These agreements have been developed for two primary reasons; first, the bureau's decisions to issue leases and approve SAPs, COPs or other plans are complex and multiple; and second, BOEM will not have the results of archaeological surveys prior to the issuance of leases and as such will be conducting historic property identification and evaluation efforts in phases (36 CFR § 800.4(b)(2)). BOEM's South Atlantic Programmatic Agreement was executed June 27, 2013 among the SHPOs of South Carolina, Georgia, and Florida; the Catawba Indian Nation; and the ACHP (Appendix B). At the request of the North Carolina SHPO, a separate agreement between BOEM, the SHPO, and ACHP was executed June 6, 2014 (Appendix C).

These agreements provide for Section 106 consultation to continue through both the commercial leasing process and BOEM's decision-making process regarding the approval, approval with modification, or disapproval of lessees' SAP, COP, or other plan, and will also allow for a phased identification and evaluation of historic properties (36 CFR § 800.4(b)(2)). Furthermore, the agreements establish the process to determine and document the area of potential effects (APE) for each undertaking; to identify historic properties located within each undertaking's APE that are listed in or eligible for listing in the National Register of Historic Places (National Register); to assess potential adverse effects; and to avoid, reduce, or resolve any such effects through the process set forth in the agreements.

#### Description of the Wind Energy Areas

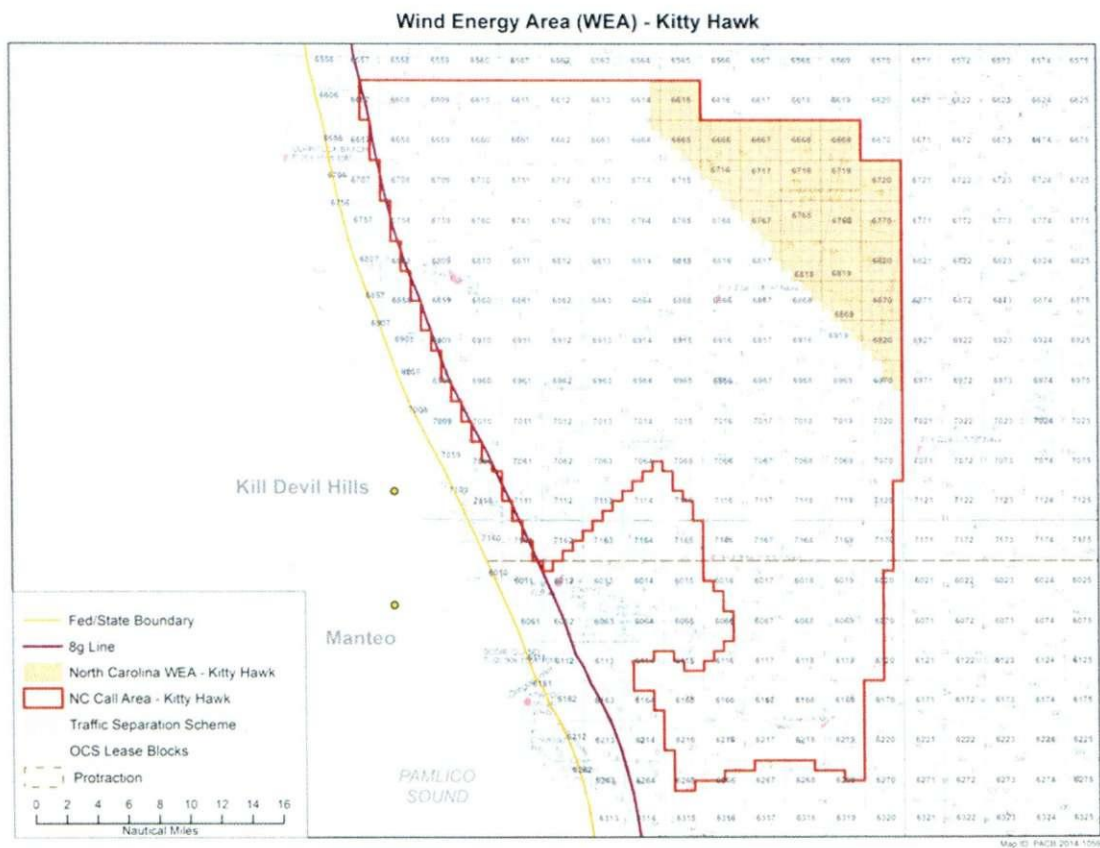
BOEM has identified three WEAs offshore North Carolina that are currently under consideration for commercial leasing (Figure 1).

- The Kitty Hawk WEA (Figure 2) begins about 24 nautical miles (nmi) from shore and extends approximately 25.7 nmi in a general southeast direction at its widest point. Its seaward extent ranges from 13.5 nmi in the north to 0.6 nmi in the south. It contains approximately 21.5 OCS blocks (122,405 acres).
- The Wilmington East WEA (Figure 3) begins about 15 nmi from Bald Head Island at its closest point and extends approximately 18 nmi in the southeast direction at its widest point. It contains approximately 25 OCS blocks (133,590 acres).
- The Wilmington West WEA (Figure 4) begins about 10 nmi from shore and extends approximately 12.3 nmi in an east-west direction at its widest point. It contains just over 9 OCS blocks (approximately 51,595 acres).

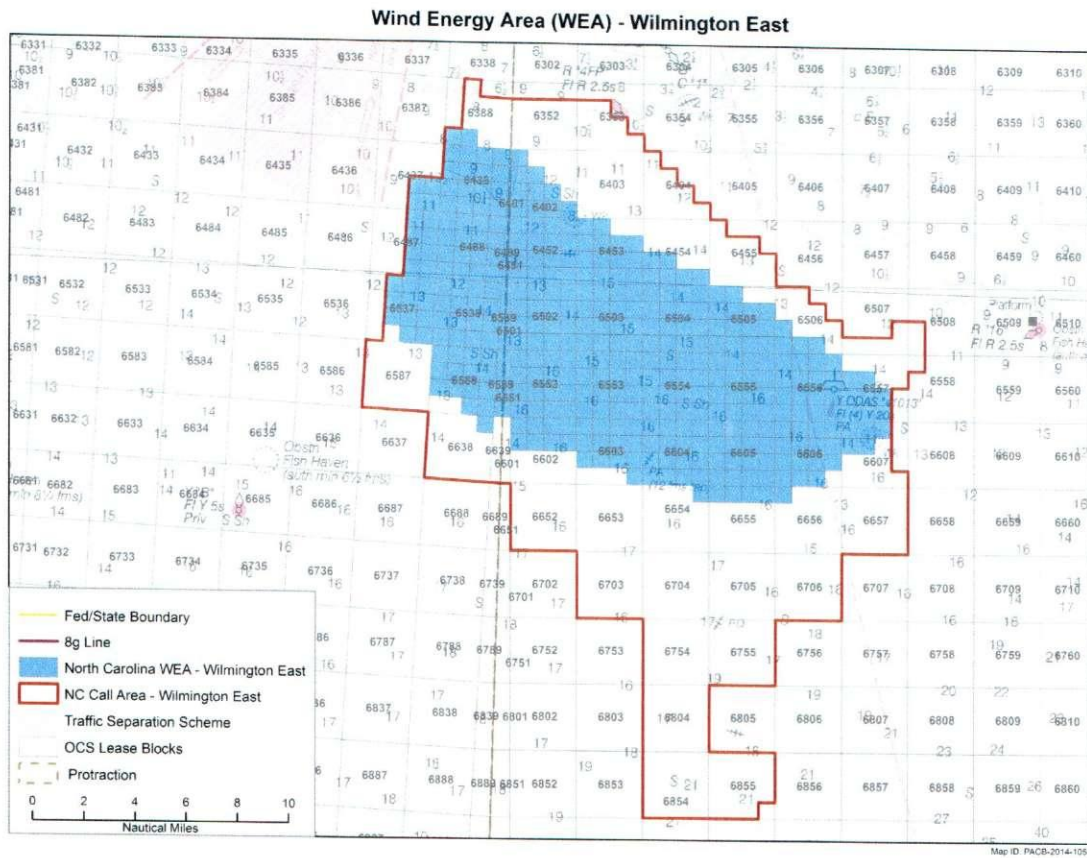


**Figure 1. Wind Energy Areas Identified Offshore North Carolina.**



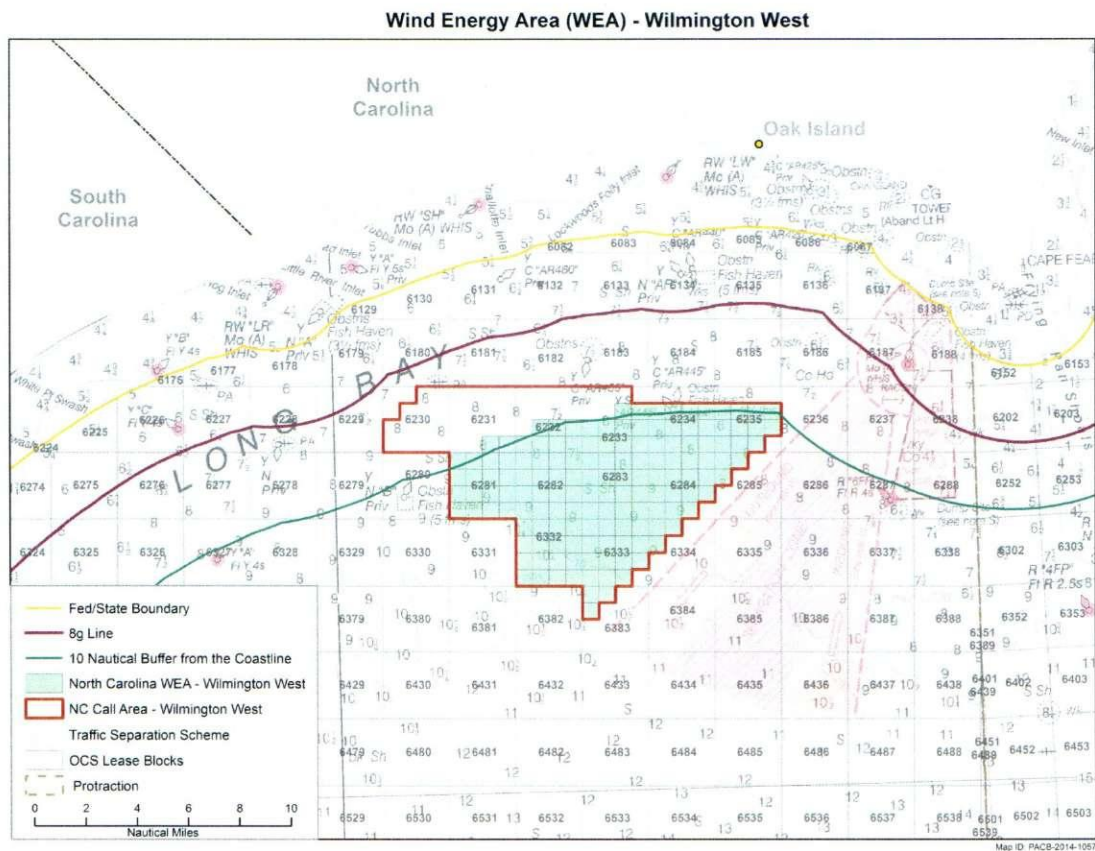


**Figure 2. Kitty Hawk Wind Energy Area.**



**Figure 3. Wilmington East Wind Energy Area.**





**Figure 4. Wilmington West Wind Energy Area.**

### The Undertaking

The proposed undertaking considered in this Finding includes the issuance of commercial leases within the North Carolina WEAs and takes into account the execution of associated site characterization activities on these commercial leases. Lessee(s) must submit the results of site characterization surveys with their SAP (30 CFR § 585.610 and 585.611) and COP (30 CFR § 585.626(a) and § 585.627). Site characterization activities include both high resolution geophysical surveys, which do not involve bottom disturbing activities, as well as geotechnical investigations, which may include bottom disturbing activities. Although BOEM does not issue permits or approvals for these site characterization activities, it will not consider approving a lessee's SAP or COP if the required survey information is not included.

The proposed undertaking does not, however, include cabling or connection to shore-based facilities, nor does it include consideration of commercial-scale facilities or construction or placement of any site assessment structures (e.g., meteorological towers or buoys). Should lessee(s) propose to deploy site assessment structures within the North Carolina WEAs, they would submit a SAP to BOEM, which BOEM would consider under a separate Section 106 review pursuant to Stipulations II and IV of the North Carolina Programmatic Agreement. Should the lessee(s) propose to construct and

operate commercial-scale facilities within the NC WEAs, they would submit a COP to BOEM, which BOEM would also consider under a separate Section 106 review pursuant to Stipulation II of the North Carolina Programmatic Agreement.

The purpose of high resolution geophysical surveys would be to acquire shallow hazards data, to identify potential archaeological resources, to characterize seafloor conditions, and to conduct bathymetric charting. BOEM anticipates that the high resolution geophysical surveys would be conducted using the following equipment: swath bathymetry system, magnetometer, side-scan sonar, and sub-bottom profiler. This equipment does not come in contact with the seafloor and is typically towed from a moving survey vessel that does not require anchoring. BOEM does not consider high resolution geophysical survey to be an activity that has the potential to cause effects to historic properties.

Geotechnical testing, or sub-bottom sampling, involves seafloor disturbing activities and has the potential to cause effects to historic properties. Geotechnical testing is conducted to assess the suitability of shallow foundation soils to support a structure or transmission cable under any operational and environmental conditions that might be encountered (including extreme events), and to document soil characteristics necessary for the design and installation of all structures and cables. Sub-bottom sampling obtains physical and chemical data on surface sediments to provide BOEM with a detailed geotechnical evaluation of the structure's foundation(s) based on analysis of soil borings from the site (e.g., 30 CFR § 585.626(4)). The results allow for a thorough investigation of the stratigraphic and geoengineering properties of the sediment that may affect the foundations or anchoring systems of a proposed wind energy project, which would be necessary for BOEM to consider approving a SAP or COP.

The renewable energy regulations require sediment testing at the site of any proposed bottom-founded structure. *See* 30 CFR § 585.610(b) (SAP) and § 585.626(a) (COP). BOEM assumes that one sub-bottom sample would be taken at the foundation location for each anticipated structure that would later be proposed in a SAP or COP. Geotechnical investigation may include the use of equipment such as gravity cores, piston cores, vibracores, deep borings, and cone penetrations tests (CPT), among others. Some of these methods require the use of anchored vessels, multi-point anchored barges, or jack-up barges.

BOEM also anticipates cases where geotechnical testing methods may be employed as part of the identification of historic properties. In some instances, sub-bottom sampling may be the only available method of testing the presence or absence of horizons of archaeological potential within features of interest identified during geophysical survey. As agreed to by the signatories under Stipulation IV of the North Carolina Programmatic Agreement, vibracores or other direct samples collected, by or under the supervision of a Qualified Marine Archaeologist, for the purposes—at least in part—of historic property identification or National Register eligibility testing and evaluation are exempt from Section 106 review.



### Area of Potential Effects

As defined in the Section 106 regulations (36 CFR § 800.16(d)), the APE is the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.

As agreed to by the signatories under Stipulation I.A. of the North Carolina Programmatic Agreement, the APE for this undertaking is defined as the depth and breadth of the seabed that could potentially be impacted by geotechnical testing. As discussed above, site characterization activities include both high resolution geophysical survey and geotechnical (sub-bottom) sampling. High resolution geophysical surveys have no ability to impact historic properties because they do not contact the seafloor and because they do not require anchoring. However, geotechnical (sub-bottom) sampling may include the collection of core samples, soil borings, or other ground disturbing techniques that could directly impact historic properties located on or below the seafloor, if present. In addition, geotechnical sampling may also require the use of barges or anchored vessels that could also directly impact historic properties, if present.

Based on the distance from shore and the manner in which site characterization studies will likely occur, BOEM has concluded that the equipment and vessels performing these activities will be indistinguishable from existing lighted vessel traffic. Therefore, BOEM has not defined as part of the APE onshore areas from which the site characterization activities would be visible. In addition, there is no indication that the issuance of a lease and subsequent site characterization studies will involve expansion of existing port infrastructure. Therefore, onshore staging activities are not considered as part of the APE for this specific undertaking.

### Consultation with Appropriate Parties and the Public

Under Stipulation I.C. of the North Carolina Programmatic Agreement, BOEM committed to identify consulting parties, pursuant to 36 CFR § 800.3(f); consult on existing, non-proprietary information regarding the proposed undertaking and the geographic extent of the APE; and to solicit additional information on historic properties within the APE from the consulting parties and the public.

On December 13, 2012, BOEM published two concurrent notices in the Federal Register: *Commercial Leasing for Wind Power on the Outer Continental Shelf Offshore North Carolina—Call for Information and Nominations* (Call) (77 FR 74204-74213) and *Notice of Intent to Prepare an Environmental Assessment* (NOI) (77 FR 74218-74220). Both of these notices solicited comments and information regarding the identification of, and effects to, historic properties from leasing and site assessment activities for the purpose of obtaining public input for the Section 106 review (36 CFR § 800.2(d)(3)).



Specific to Section 106 review, one response was received from NPS expressing concern regarding visual impacts to NPS resources within Cape Hatteras National Seashore from potential future commercial wind energy development within the Kitty Hawk WEA (Appendix D). NPS had no comments regarding the Wilmington East or West WEAs. NPS highlighted specific historic properties of concern including the National Register of Historic Places-listed Wright Brothers Memorial, Bodie Island Light Station, Ocracoke Light Station, Cape Lookout Light Station, and the Cape Hatteras Light Station National Historic Landmark.

These historic properties are not within the APE for the undertaking under consideration in this Finding. Should a lessee(s) propose to deploy site assessment structures or propose to construct and operate commercial-scale facilities within the North Carolina WEAs, they would submit a plan to BOEM, which BOEM would consider under a separate Section 106 review pursuant to Stipulation II of the North Carolina Programmatic Agreement. However, in an effort to address viewshed concerns within the Kitty Hawk WEA early in the decision-making process, BOEM further coordinated with NPS to delineate the WEA. As a result of this coordination, areas within 33.7 nmi of Bodie Island Lighthouse and 24 nmi from the coastline have been excluded from the Kitty Hawk WEA (see Figure 2). Additionally, as part of an effort to evaluate future viewshed impacts from potential commercial wind energy development with the WEAs, BOEM completed a visualization study in coordination with NPS, the results of which can be viewed at: <http://www.boem.gov/Renewable-Energy-Program/State-Activities/NC/Offshore-North-Carolina-Visualization-Study.aspx>.

On January 22, 2015, BOEM published in the Federal Register the *Notice of Availability - Environmental Assessment for Commercial Wind Lease Issuance and Site Assessment Activities on the Outer Continental Shelf North Carolina* (NOA) (80 FR 3621). Related to historic preservation issues, BOEM received comments from the Bald Head Association that express overall concern regarding visual impacts to the Village of Bald Head Island from potential future commercial wind energy development within the Wilmington West and Wilmington East WEAs and specifically noting potential viewshed impacts to the National Register-listed Bald Head Island Lighthouse, the oldest standing lighthouse in North Carolina (Appendix E). This historic property is not within the APE for the undertaking under consideration in this Finding. However, as described above, should a lessee(s) submit a plan to BOEM, the bureau would conduct a separate review under Section 106 pursuant to Stipulation II of the North Carolina Programmatic Agreement.

Concurrent with the public review and comment period for the Environmental Assessment, BOEM held public meetings during the week of February 9, 2015 in Kitty Hawk, Wilmington, and Carolina Shores, North Carolina. The purpose of these meetings was, in part, to solicit comments and information on historic properties to inform the bureau's Section 106 review of the undertaking. None of the comments received at these meetings concerned historic properties, the scope of historic properties identification efforts, or any other topic relevant to the Section 106 review of the undertaking that is the subject of this Finding.



Per Stipulation VI of the North Carolina Programmatic Agreement, BOEM with the consulting parties, will continue to involve the public through outreach, notifications, and request for comment throughout the Section 106 consultation process for both the issuance of renewable energy leases and consideration of subsequent plans. This includes publications in the Federal Register and on its website requesting information on historic properties and concerns regarding the undertaking.

In September 2014 BOEM initiated Section 106 consultation for the undertaking of issuing commercial leases within the North Carolina WEAs through letters of invitation to the North Carolina SHPO and ACHP as signatories to the agreement, as well as to the South Carolina SHPO and Catawba Indian Nation (Appendix F). BOEM additionally contacted representatives of local governments, historic preservation groups, state recognized tribes, and other federal agencies to solicit information on historic properties and to determine their interest in participating as a consulting party (Table 1, Appendix G).

The ACHP responded via email November 25, 2014, declining to participate in the consultation, unless requested by a consulting party or the bureau (Appendix H). The North Carolina SHPO responded December 9, 2014, indicating that they are not aware of any historic properties which would be affected by the project (Appendix I). The South Carolina SHPO responded October 22, 2014, stating that their office had no information regarding historic properties within the WEAs and recommending additional historic preservation organizations that should be contacted (Appendix J). BOEM subsequently sent correspondence to these organizations to solicit information on historic properties and to determine their interest in participating as a consulting party.

BOEM shared this Finding in draft form with the consulting parties, and additionally held the following consultation meetings:

- an in-person meeting February 10, 2015, with staff of the North Carolina SHPO, and
- a webinar with all consulting parties April 23, 2015.

Table 1.  
Entities Solicited for Information and Concerns  
Regarding Historic Properties and the Proposed Undertaking

<b>SHPOs</b>			
North Carolina SHPO	South Carolina SHPO		
<b>Federally Recognized Tribes</b>			
Catawba Indian Nation			
<b>Other Federal Agencies</b>			
NOAA's Monitor National Marine Sanctuary	National Park Service, Southeast Regional Office	National Park Service, Cape Hatteras National Seashore	National Park Service, Cape Lookout National Seashore
<b>State Recognized Tribes</b>			
Coharie Tribe	Haliwa-Saponi Tribe	Lumbee Tribe of North Carolina	Meherrin Indian Tribe
Occaneechi Band of the Saponi Nation	Sappony	Waccamaw Siouan Tribe	
<b>Local Governments</b>			
Brunswick County	Carteret County	City of Southport	City of Wilmington
City of Wilmington Environmental Affairs	Currituck County Board of Commissioners	Dare County	Hyde County Board of Commissioners
Kill Devil Hills	New Hanover County Board of Commissioners	Onslow County Board of Commissioners	Pender County Board of Commissioners
Town of Atlantic Beach	Town of Caswell Beach	Town of Holden Beach	Town of Kitty Hawk
Town of Kure Beach	Town of Manteo	Town of Morehead City	Town of Nags Head
Town of North Topsail Beach	Town of Oak Island	Town of Ocean Isle Beach	Town of Southern Shores
Town of Sunset Beach	Town of Surf City	Village of Bald Head Island	
<b>Other Organizations</b>			
Atlantic Beach Historical Society	Historic Wilmington Foundation	Horry County Historical Society	Horry County Museum
North Myrtle Beach Area Historical Museum	Outer Banks Conservationists, Inc.		

## II. Description of the Steps Taken to Identify Historic Properties

As documented in the North Carolina Programmatic Agreement, BOEM has determined that the identification and evaluation of historic properties will be conducted through a phased approach, pursuant to 36 CFR § 800.4(b)(2), where the final identification of historic properties may occur after the issuance of a lease or grant, but before the approval of a plan because lessees conduct site characterization surveys in preparation for plan submittal.

BOEM has reviewed existing and available information regarding historic properties that may be present within the APE, including data concerning possible historic properties not yet identified. Sources of this information include consultation with the appropriate parties and the public, accessing information gathered through BOEM-funded studies,



and reviewing cultural resources information compiled for preparation of the Environmental Assessment (Watts 2014).

Relevant BOEM studies include an updated study of archaeological resource potential on the Atlantic OCS (TRC 2012). The study compiles information on reported shipwrecks in the Atlantic Shipwreck Database and additionally models the potential for pre-European contact sites based on reconstruction of past landscapes, human settlement patterns, and site formation and preservation conditions. BOEM's Atlantic Shipwreck Database does not represent a complete listing of all potential shipwrecks located on the Atlantic OCS, but rather it serves as a baseline source of existing and available information for the purposes of corroborating and supporting identification efforts. In many cases, the locational accuracy of database entries varies greatly. Other BOEM survey efforts include an ongoing Battle of the Atlantic research partnership with the National Oceanic and Atmospheric Administration, Monitor National Marine Sanctuary and an ongoing cooperative agreement with the University of North Carolina to conduct reconnaissance level geophysical survey within the Wilmington West WEA.

No site-specific archaeological identification surveys have been conducted to date within the North Carolina WEAs; however, the types of historic properties expected to be present within the APE include both submerged pre-contact and historic period archaeological sites.

#### Pre-contact Historic Properties

The WEAs offshore North Carolina are geographically located within portions of the OCS once exposed as dry land and are designated as having a high potential for the presence of submerged pre-contact archaeological sites (TRC: 2012:106).

Approximately 20,000 years before present (BP), during the peak of the last ice age known as the Last Glacial Maximum, sea level was 120 meters (394 feet) below present level, leaving all of the WEAs accessible to Paleo-Indian populations (TRC: 2012:97). Sudden rapid rises in sea level, known as Melt Water Pulses, occurred during the Paleo-Indian period and may have been caused in part by collapsing ice sheets and the associated release of immense quantities of melt water. By 10,000 BP sea level on the OCS offshore North Carolina was at approximately 30 meters (98 feet) below present level (TRC: 2012:97).

During the Archaic period sea level rise slowed considerably and the WEAs were still likely exposed as areas of dry land. The Archaic period was marked by a change in climate following the Last Glacial Maximum that produced a more favorable environment for human subsistence. During the Archaic period a wider range of habitats were utilized for subsistence, and thus likely a wider range of plants and animals were exploited including nuts, large and small game, seed-bearing plants and fish, etc. (TRC, 2012:34). By the beginning of the Woodland period, sea level rise had inundated the OCS to near its present level. During this time period the WEAs would have been fully submerged removing any possibility for the presence of submerged archaeological sites dating to the Woodland period (TRC: 2012:8).



Not all of the formerly exposed areas within the WEAs may have survived the destructive effects of erosion caused by sea level rise and marine transgression; however, submerged landforms that are considered to have a higher probability for the potential presence and preservation of archaeological sites have been previously documented within and adjacent to two of the WEAs (TRC: 2012:99). Relict sub-bottom lagoonal and channel features have been identified west of the Kitty Hawk WEA and portions of these features may extend into the WEA. These include lagoonal complexes associated with Platt Shoal and paleochannels identified off Duck, Kitty Hawk and Nags Head (Moir, 1979; Browder and McNinch, 2006 [in TRC: 2012:104]). In the vicinity of Cape Fear, relict channels of the Cape Fear River extend out onto the OCS in Long Bay (TRC: 2012:104). Those sub-bottom features have been documented in the vicinity of the northeastern corner of the Wilmington West WEA.

#### Historic Period Historic Properties

The coast of North Carolina has a well-deserved reputation as the “Graveyard of the Atlantic.” More than 4,000 vessel losses have been historically documented in the underwater archaeological site files of the North Carolina Department of Cultural Resources, Underwater Archaeology Unit (John Morris to Gordon Watts, pers. comm., September 29, 2014). High concentrations of reported shipwrecks on the North Carolina OCS are also identified in BOEM’s Atlantic Shipwreck Database (TRC: 2012:155). Documented patterns of maritime activity indicate that all areas of North Carolina’s Atlantic coastline and OCS have a high potential for containing the remains of historic period archaeological sites (TRC 2012:218).

Shipwrecks along the North Carolina coast and within the WEAs have the potential to date from as early as the late sixteenth century and likely include vessels from every subsequent century. The earliest vessel losses in the region may well be associated with undocumented vessels of Spanish explorers or the fleet of Sir Francis Drake and Sir Walter Raleigh’s efforts to establish a colony at Roanoke Island in the 1580s. As English colonies in North America developed so did the loss of merchant vessels and warships. During the American Revolution, the Quasi-War with France, the War of 1812, the Civil War, World War I and World War II, there was a corresponding increase in the numbers of vessels lost or destroyed at sea offshore North Carolina (TRC: 2012:207).

The Kitty Hawk WEA and the adjacent northern Outer Banks are in the vicinity of one of the most heavily traveled navigation routes on the Atlantic seaboard. Reported shipwrecks in the Atlantic Shipwreck Database include three possible sites within and surrounding the Kitty Hawk WEA (Table 2). The Cape Fear entrances to the Port of Wilmington, in the vicinity of the Wilmington East and West WEAs, have one of the highest associated concentrations of reported shipwrecks in North Carolina. Three sites are reported within the Wilmington West WEA, and four sites are reported within and surrounding Wilmington East WEA. In the absence of actual high-resolution geophysical survey data, the presence and location of shipwrecks cannot be predicted with any degree of reliability because of human inconsistency, environmental factors, and the dearth of

historical data. Ample evidence exists, however, to support the determination that all of the WEAs have a high probability for the presence of historic period archaeological sites.

Table 2.

Reported Shipwrecks and Obstructions within the North Carolina WEAs.

WEA	Classification	Name	Year Lost
Kitty Hawk	VESSEL	Unknown	Unknown
Kitty Hawk	VESSEL	Barque	1942
Kitty Hawk	VESSEL	NR 4553	Unknown
Wilmington East	VESSEL	Wreck	Unknown
Wilmington East	VESSEL	Lady Margaret	Unknown
Wilmington East	VESSEL	Unknown	1956
Wilmington East	VESSEL	Raritan	1942
Wilmington West	OBJECT	Train Cars	Unknown
Wilmington West	VESSEL	Unknown	Unknown
Wilmington West	VESSEL	AR-445 D Jell II	1991

### III. Required Elements in the Lease(s)

Per Stipulation I.E. of the North Carolina Programmatic Agreement, where practicable, BOEM will require avoidance of potential historic properties through lease stipulations, resulting in BOEM recording a Finding of No Historic Properties Affected, consistent with 36 CFR § 800.4(d)(1). Inclusion of the following elements in the lease(s) will ensure avoidance of historic properties and is a requirement of this Finding. The following elements will be included in all commercial leases issued within the North Carolina WEAs:

- Archaeological Survey Required. The Lessee must provide the results of an archaeological survey with its SAP and COP.
- Qualified Marine Archaeologist. The Lessee must ensure that the analysis of archaeological survey data collected in support of plan submittal and the preparation of archaeological reports in support of plan submittal are conducted by a Qualified Marine Archaeologist.
- Avoidance of Potential Archaeological Resources. The Lessee may only conduct geotechnical exploration activities performed in support of plan submittal in locations where an analysis of the results of geophysical surveys has been completed. This analysis must include a determination by a Qualified Marine Archaeologist as to whether any potential archaeological resources are present in the area. Except as allowed by the Lessor under the No Impact without Prior BOEM Approval Clause, the geotechnical exploration activities must avoid potential archaeological resources by a minimum of 50 meters, and the avoidance distance must be calculated from the maximum discernible extent of the



archaeological resource. A Qualified Marine Archaeologist must certify, in the Lessee's archaeological reports, that geotechnical exploration activities did not impact potential historic properties identified as a result of the HRG surveys performed in support of plan submittal, except as follows: in the event that the geotechnical exploration activities did impact potential historic properties identified in the archaeological surveys without the Lessor's prior approval, the Lessee and the Qualified Marine Archaeologist who prepared the report must instead provide a statement documenting the extent of these impacts.

- No Impact without Approval. In no case may the Lessee knowingly impact a potential archaeological resource without the Lessor's prior approval.
- Post-Review Discovery Clause. If the Lessee, while conducting site characterization activities in support of plan (i.e., SAP and COP) submittal, discovers a potential archaeological resource, such as the presence of a shipwreck (e.g., a sonar image or visual confirmation of an iron, steel, or wooden hull, wooden timbers, anchors, concentrations of historic objects, piles of ballast rock), prehistoric artifacts, or relict landforms, etc., within the project area, the Lessee must:
  - Immediately halt seafloor/bottom-disturbing activities within the area of discovery;
  - Notify the Lessor within 24 hours of discovery;
  - Notify the Lessor in writing via report to the Lessor within 72 hours of its discovery;
  - Keep the location of the discovery confidential and take no action that may adversely affect the archaeological resource until the Lessor has made an evaluation and instructs the applicant on how to proceed; and
  - Conduct any additional investigations as directed by the Lessor to determine if the resource is eligible for listing in the National Register of Historic Places (30 CFR 585.802(b)). The Lessor will do this if: (1) the site has been impacted by the Lessee's project activities; or (2) impacts to the site or to the area of potential effect cannot be avoided. If investigations indicate that the resource is potentially eligible for listing in the National Register of Historic Places, the Lessor will tell the Lessee how to protect the resource or how to mitigate adverse effects to the site. If the Lessor incurs costs in protecting the resource, under Section 110(g) of the National Historic Preservation Act, the Lessor may charge the Lessee reasonable costs for carrying out preservation responsibilities under the OCS Lands Act (30 CFR 585.802(c-d)).

#### **IV. The Basis for the Determination of No Historic Properties Affected**

This finding is based on the review conducted by BOEM of existing and available information, consultation with interested and affected parties, and the conclusions drawn from this information. The required identification and avoidance measures that will be included in commercial leases will ensure that the proposed undertaking will not affect



historic properties. Therefore, *No historic properties will be affected* for the undertaking of issuing commercial leases within the North Carolina WEAs, consistent with 36 CFR § 800.4(d).

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2014 The Potential Impact Of BOEM Permitted Activities On Submerged Cultural Resources in Three OCS Wind Energy Areas Located off The North Carolina Coast. Tidewater Atlantic Research, Inc., Letter Report submitted to ICF International, October 10, 2014.

## **APPENDICES**

Appendix A: Announcement of Area Identification—Commercial Wind Energy Leasing on the Outer Continental Shelf Offshore North Carolina

Appendix B: South Atlantic Programmatic Agreement

Appendix C: North Carolina Programmatic Agreement

Appendix D: Comments from NPS to BOEM regarding Call for Information and Nominations, March 7, 2013.

Appendix E: Comments from Bald Head Association to BOEM regarding Notice of Availability of an Environmental Assessment, February 20, 2015.

Appendix F: Correspondence from BOEM to North Carolina SHPO, October 8, 2014; a similar letter was sent to all signatories of the North Carolina and South Atlantic Programmatic Agreements.

Appendix G: Correspondence from BOEM to Town of Southern Shores, North Carolina, October 8, 2014; a similar letter was sent to all potential consulting parties.

Appendix H: Correspondence from ACHP to BOEM regarding consulting party request, November 25, 2014.

Appendix I: Correspondence from North Carolina SHPO to BOEM, December 9, 2014.

Appendix J: Correspondence from South Carolina SHPO to BOEM, October, 22 2014.



## ANNOUNCEMENT OF AREA IDENTIFICATION

### Commercial Wind Energy Leasing on the Outer Continental Shelf Offshore North Carolina

Aug. 7, 2014

The Bureau of Ocean Energy Management (BOEM) is proceeding with competitive commercial wind energy leasing on the Outer Continental Shelf (OCS) offshore North Carolina, as set forth by 30 CFR 585.211 through 585.225. The next step in the competitive leasing process, and the purpose of this announcement, is Area Identification. BOEM has defined three Wind Energy Areas (WEAs) offshore North Carolina (Figure 1). The Kitty Hawk WEA begins about 24 nautical miles (nm) from shore and extends approximately 25.7 nm in a general southeast direction at its widest point. Its seaward extent ranges from 13.5 nm in the north to .6 nm in the south. It contains approximately 21.5 OCS blocks (122,405 acres). The Wilmington West WEA begins about 10 nm from shore and extends approximately 12.3 nm in an east-west direction at its widest point. It contains just over 9 OCS blocks (approximately 51,595 acres). The Wilmington East WEA begins about 15 nm from Bald Head Island at its closest point and extends approximately 18 nm in the southeast direction at its widest point. It contains approximately 25 OCS blocks (133,590 acres).

All three WEAs will be considered for leasing and approval of site assessment plans as the proposed action under the National Environmental Policy Act (NEPA) (42 U.S.C. §§ 4321-4370f). BOEM also has identified an alternative to the proposed action that would exclude one of the WEAs from consideration for lease issuance and approval of site assessment activities, and another alternative that would establish seasonal restrictions on certain site characterization activities. This announcement also identifies mitigation measures to be considered further in the NEPA document.

On December 13, 2012, BOEM published in the *Federal Register* the *Commercial Leasing for Wind Power on the Outer Continental Shelf Offshore North Carolina—Call for Information and Nominations* (Call) (77 FR 74204-74213) and *Notice of Intent to Prepare an Environmental Assessment* (NOI) (77 FR 74218-74220).

Comments on the Call and NOI and BOEM studies identified multiple space use conflicts within the Call areas. BOEM worked closely with Federal, state, local and industry stakeholders to avoid existing high use and sensitive resource areas while maximizing areas for offshore wind development. BOEM made the following exclusions from the Call areas prior to defining the three WEAs.

- **Kitty Hawk WEA.** Call Area Kitty Hawk included certain areas that overlapped with traditional shipping routes used by both tug and barge and deep draft (primarily container ships) vessels. BOEM worked closely with the United States Coast Guard (USCG) and the maritime community to modify Call Areas Kitty Hawk and Wilmington East in an effort to reduce potential conflicts with vessel navigation and safety. In addition, the National Park Service requested that areas within 33.7 nm of Bodie Island Lighthouse be excluded from development, and the Town of Kitty Hawk passed a resolution requesting that BOEM exclude areas within 20 nm of the coast from development. In response to these concerns, areas within 33.7 nm of Bodie Island Lighthouse and 24 nm from the coastline have been excluded from inclusion in the Kitty Hawk WEA (Figure 2).

- **Wilmington West WEA.** During public open houses held in 2013, BOEM presented the results of our North Carolina Visual Simulation Study. In response, stakeholders expressed concern about the visual impacts of future wind energy development in Call Area Wilmington West during both the day and night time. In response to these concerns, areas within 10 nm of the coastline have not been included as part of the Wilmington West WEA (Figure 3). Although portions of lease blocks included in the WEA are within 10 nm of shore, BOEM will not allow the installation of turbines within those areas.
- **Wilmington East WEA.** Call Area Wilmington East included certain areas that overlapped with traditional shipping routes used by both tug and barge and deep draft (primarily container ships) vessels, many of which utilize the Port of Wilmington. BOEM has worked closely with the USCG and the maritime community to modify the Call Area in an effort to minimize impacts to vessels utilizing the Port of Wilmington while still allowing for offshore wind development. In addition, through an ongoing cooperative agreement with UNC Chapel Hill and an interagency agreement with the National Oceanic and Atmospheric Administration (NOAA), areas of high topographic relief and patches of consolidated hard bottom, both of which were found to be correlated with high fish densities, were identified in the Call Area. In response to these navigational safety concerns and the presence of sensitive habitat, BOEM excluded these areas from inclusion in the Wilmington East WEA (Figure 4).

Alternatives to the proposed action (Alternative A) include:

- Elimination of Wilmington West area due to potential impacts to migrating North Atlantic right whales (Alternative B).
- Establishment of seasonal restrictions on site characterization activities, specifically geological and geotechnical surveys, during peak migration of North Atlantic right whales (November 1 – April 30) (Alternative C).

The agency is currently only considering the issuance of leases and approval of site assessment plans in these WEAs. BOEM is not considering, and the EA will not support, any decision(s) regarding the construction and operation of wind energy facilities on leases which will potentially be issued in these WEAs. If, after leases are issued, a lessee proposes to construct a commercial wind energy facility, it would submit a construction and operations plan. If and when BOEM receives such a plan, it would prepare a site-specific NEPA document for the project proposed, which would include the lessee's proposed transmission line(s) to shore. These cable routes would underlie areas outside of the WEAs, and may include areas beneath the areas with conflicts from vessel traffic, visual impacts, hard bottom, and fishing.

BOEM has also identified mitigation measures that may reduce the potential for adverse impacts to North Atlantic right whales, other marine mammals, and sea turtles. Such measures include vessel speed restrictions and enhanced monitoring. These measures, and possibly others, will be analyzed in the EA, and if adopted, could be imposed as binding requirements in the form of stipulations in the lease instrument and/or conditions of approval of a site assessment plan. Based upon consultations with Federal agencies, states, local governments, and affected Indian tribes and public comments received, BOEM will continue to consider additional measures that may reduce the potential for adverse environmental consequences, and may identify other issues to be considered in the EA.



**Figure 1. Wind Energy Areas identified offshore North Carolina for analysis as the Proposed Action (Alternative A) in the EA.**

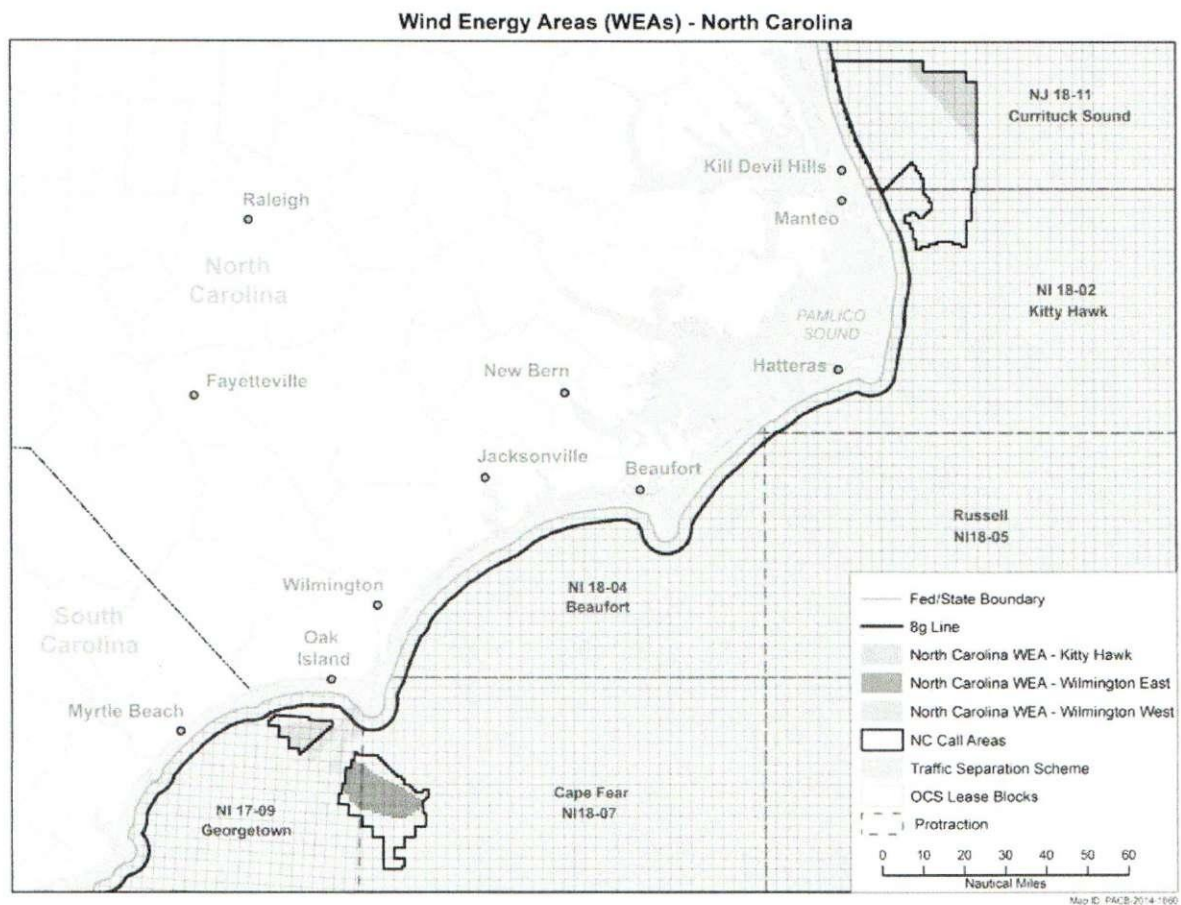
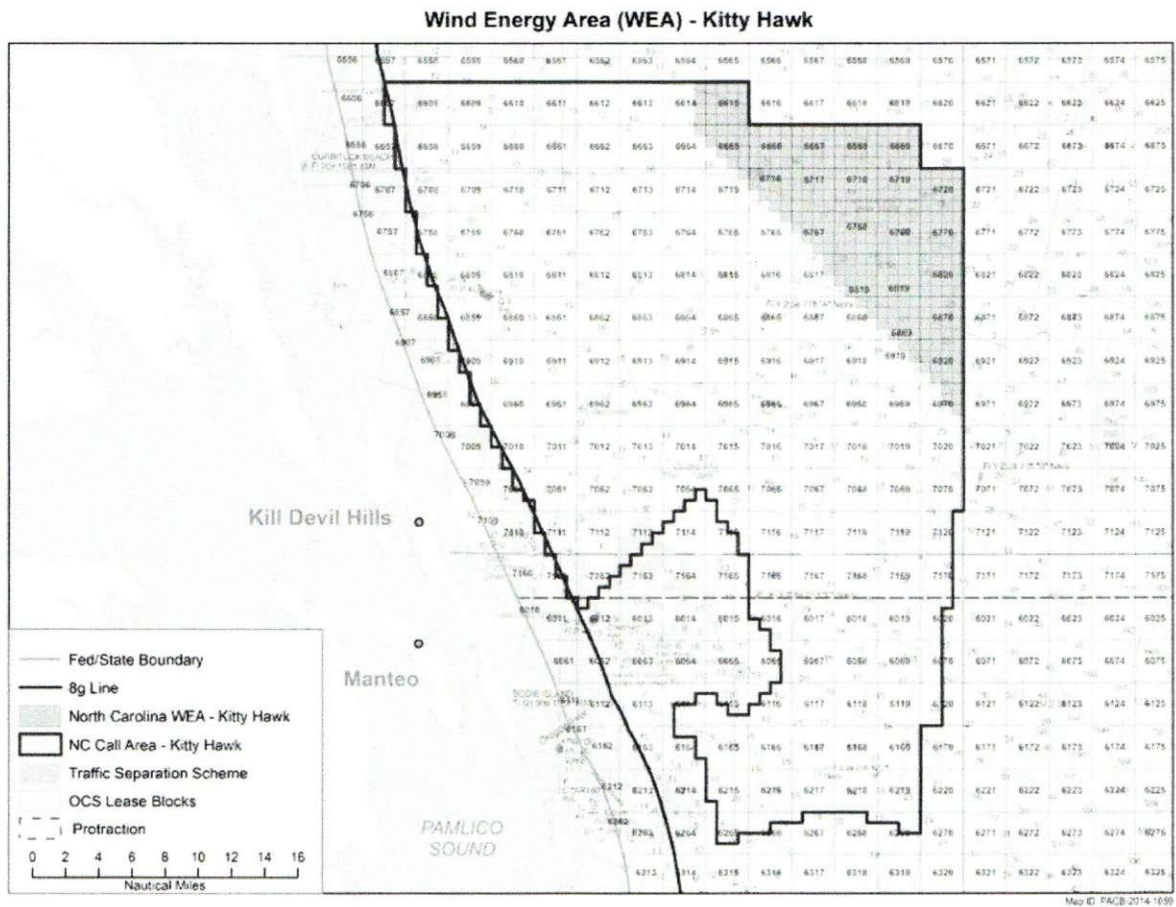


Figure 2. North Carolina Wind Energy Area Kitty Hawk



**Figure 3. North Carolina Wind Energy Area Wilmington West**

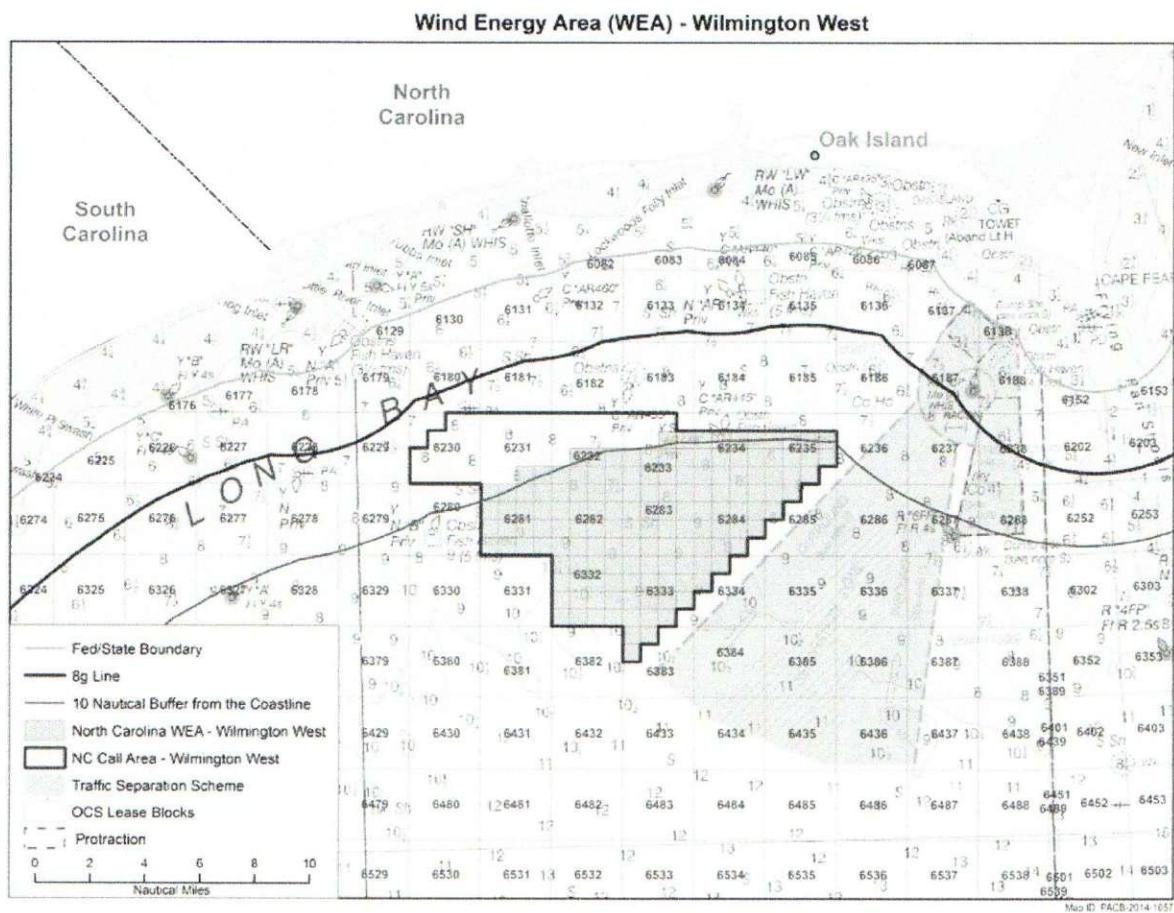
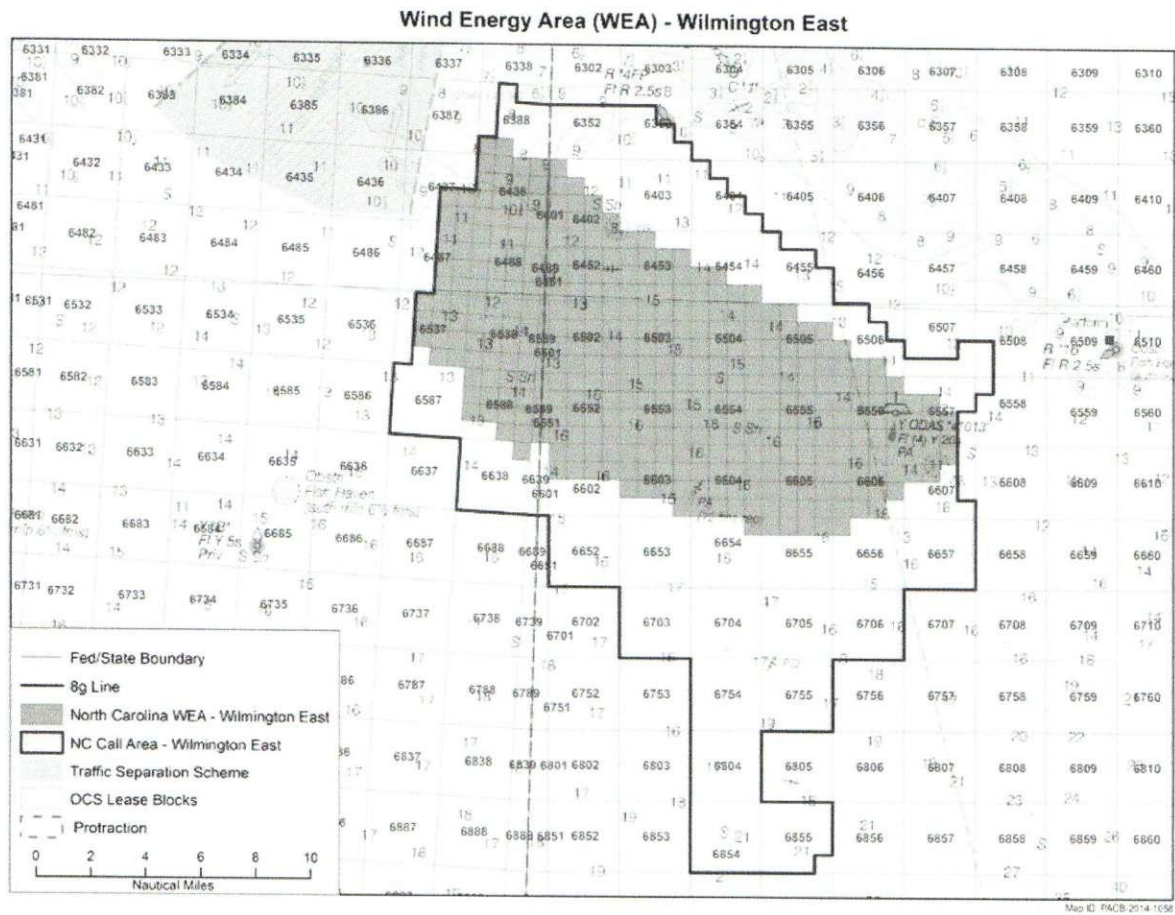




Figure 4. North Carolina Wind Energy Area Wilmington East



MAY 23 2013

PROGRAMMATIC AGREEMENT

Among

The U.S. Department of the Interior, Bureau of Ocean Energy Management;  
the State Historic Preservation Officers of North Carolina, South Carolina, Georgia, and Florida;  
The Catawba Indian Nation and

The Advisory Council on Historic Preservation;

Regarding

Review of Outer Continental Shelf Renewable Energy Activities under  
Section 106 of the National Historic Preservation Act

WHEREAS, the Outer Continental Shelf Lands Act (OCSLA) grants the Secretary of the Interior the authority to issue leases, easements, or rights-of-way on the Outer Continental Shelf (OCS) for the purpose of renewable energy development, including wind energy development (*see* 43 U.S.C. § 1337(p)(1)(C)), and to promulgate regulations to carry out this authority (*see* 43 U.S.C. § (p)(8)); and

WHEREAS, the Secretary delegated this authority to the former Minerals Management Service (MMS), now the Bureau of Ocean Energy Management (BOEM), and promulgated final regulations implementing this authority at 30 CFR § 585; and

WHEREAS, under the renewable energy regulations, the issuance of leases and subsequent approval of wind energy development on the OCS is a staged decision-making process that occurs in distinct phases; and

WHEREAS, BOEM may issue commercial leases, limited leases, research leases, interim policy leases, Right-of-Way (ROW) grants, or Right-of-Use and Easement (RUE) grants on the OCS, and

WHEREAS, *Outer Continental Shelf* (OCS) means all submerged lands lying seaward and outside of the area of lands beneath navigable waters, as defined in section 2 of the Submerged Lands Act (43 U.S.C. 1301), whose subsoil and seabed appertain to the United States and are subject to its jurisdiction and control. *See* 30 CFR § 585.112; and

WHEREAS, *Commercial lease* means a lease, issued under the renewable energy regulations at 30 CFR § 585, that specifies the terms and conditions under which a person can conduct commercial activities. *See* 30 CFR § 585.112; and

WHEREAS, *Commercial activities* mean, for renewable energy leases and grants, all activities associated with the generation, storage, or transmission of electricity or other energy product from a renewable energy project on the OCS, and for which such electricity or other energy product is intended for distribution, sale, or other commercial use, except for electricity or other energy product distributed or sold pursuant to technology-testing activities on a limited lease. This term also includes activities associated with all stages of development, including initial site characterization and assessment, facility construction, and project decommissioning. *See* 30 CFR § 585.112; and



WHEREAS, *Limited lease* means a lease, issued under the renewable energy regulations at 30 CFR § 585, that specifies the terms and conditions under which a person may conduct activities on the OCS that support the production of energy, but do not result in the production of electricity or other energy product for sale, distribution, or other commercial use exceeding a limit specified in the lease. *See* 30 CFR § 585.112; and

WHEREAS, *Research lease* means an OCS lease, ROW grant, and/or RUE grant, issued under the renewable energy regulations at 30 CFR § 585.238, to a Federal agency or a state for renewable energy research activities that support the future production, transportation, or transmission of renewable energy. *See* 30 CFR § 585.112; and

WHEREAS, *Interim Policy lease* means a lease, issued under the interim policy announced in November 2007, before the issuance of the final regulations in April 2009, which allowed for limited leasing for resource data collection and technology testing activities. The Interim Policy leases have a five year term and provide no subsequent commercial rights. *See* 72 FR 62673; and

WHEREAS, *ROW grant* means an authorization, issued under the renewable energy regulations at 30 CFR § 585, to use a portion of the OCS for the construction and use of a cable or pipeline for the purpose of gathering, transmitting, distributing, or otherwise transporting electricity or other energy product generated or produced from renewable energy. An ROW grant authorizes the holder to install on the OCS cables, pipelines, and associated facilities that involve the transportation or transmission of electricity or other energy product from renewable energy projects. *See* 30 CFR § 585.112; and

WHEREAS, *RUE grant* means an easement, issued under the renewable energy regulations at 30 CFR § 585, that authorizes use of a designated portion of the OCS to support activities on a lease or other use authorization for renewable energy activities. An RUE grant authorizes the holder to construct and maintain facilities or other installations on the OCS that support the production, transportation, or transmission of electricity or other energy product from any renewable energy resource. *See* 30 CFR § 585.112; and

WHEREAS, *Qualified marine archaeologist* means a person who meets the Secretary of the Interior's Professional Qualification Standards for Archaeology (48 FR 44738 – 44739), and has experience analyzing marine geophysical data; and

WHEREAS, Commercial leases/limited leases and ROW and RUE grants do not grant the lessee or grantee the right to construct any facilities; rather, the lease or grant grants the lessee or grantee the right to use the leased area to develop its plans, which must be submitted to and approved by BOEM before the lessee or grantee implements its plans. *See* 30 CFR § 585.600 and 585.601; and

WHEREAS, under BOEM's renewable energy regulations at 30 CFR § 585, BOEM may review and approve, approve with modifications, or disapprove Site Assessment Plans (SAPs), Construction and Operations Plans (COPs), and General Activities Plans (GAPs), collectively "plans". *See* 30 CFR § 585.613(e), 585.628(f), 585.648(e); and

WHEREAS, under the Interim Policy, BOEM may review and object to project plans; and

WHEREAS, BOEM has determined that issuing leases and grants and approving plans constitute undertakings subject to Section 106 of the National Historic Preservation Act (NHPA; 16 U.S.C. § 470f), and its implementing regulations (36 CFR § 800); and

WHEREAS, the issuance of a commercial or limited lease, or a ROW or RUE grant has the potential to cause effects on historic properties insofar as it may lead to the lessee conducting geotechnical testing; and

WHEREAS, the issuance of a research or interim policy lease or approval of a plan has the potential to cause effects on historic properties insofar as it may lead to the lessee conducting additional geotechnical testing; constructing and operating site assessment facilities and renewable energy structures; and placing and operating a transmission cable; and

WHEREAS, BOEM may issue multiple renewable energy leases and grants and approve multiple plans associated with each lease or grant issued on the OCS offshore the Atlantic states; and

WHEREAS, BOEM has determined that the implementation of the Offshore Renewable Energy Program is complex, as the decisions on these undertakings are phased, pursuant to 36 CFR § 800.14(b); and

WHEREAS, 36 CFR § 800.4(b)(2) provides for deferral of final identification and evaluation of historic properties when provided for in an agreement executed pursuant to 36 CFR §800.14(b); and

WHEREAS, BOEM has determined that the identification and evaluation of historic properties shall be conducted through a phased approach, pursuant to 36 CFR § 800.4(b)(2), where the final identification of historic properties may occur after the issuance of a lease or grant and before the approval of a plan as a lessee conducts site characterization surveys in preparation for plan submittal (*see* 30 CFR 585); and

WHEREAS, the deferral of final identification and evaluation of historic properties could result in the discovery of unknown significant historic properties that could impact project planning, siting, and timelines; and

WHEREAS, 36 CFR § 800.14(b)(3) provides for developing programmatic agreements (agreements) for complex or multiple undertakings and § 800.14(b)(1) provides for using agreements when effects on historic properties cannot be fully determined prior to approval of an undertaking (*see* 800.14(b)(1)(ii)), and for other circumstances warranting a departure from the normal Section 106 process (*see* 800.14(b)(1)(v)); and

WHEREAS, the Section 106 consultations described in this agreement will be used to establish a process for identifying historic properties located within the undertakings' Areas of Potential Effects (APE), and to assess the potential adverse effects and to avoid, reduce, or resolve any such effects through the process set forth in this agreement; and



WHEREAS, historic property means any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register (*see* 36 CFR § 800.16(l)(1)); and

WHEREAS, BOEM has identified and consulted with the State Historic Preservation Officers (SHPOs) for NC, SC, GA, and FL, (collectively, “the SHPOs”); and

WHEREAS, the Seminole Tribe of Florida and the Catawba Indian Nation are Tribes, as defined at 36 CFR § 800.16(m), have chosen to consult with BOEM and participate in development of this agreement; and

WHEREAS, BOEM shall continue to consult with these and other Tribes to identify properties of religious and cultural significance that may be eligible for listing in the National Register of Historic Places (including Traditional Cultural Properties or TCPs) and that may be affected by these undertakings; and

WHEREAS, BOEM involves the public and identifies other consulting parties through notifications, requests for comments, existing renewable energy task forces, contact with SHPOs, NEPA scoping meetings and communications for these proposed actions; and

WHEREAS, BOEM, the SHPOs, the Catawba Indian Nation, and the Advisory Council on Historic Preservation (ACHP) are signatories to this agreement.

NOW, THEREFORE, the signatories agree that Section 106 review shall be conducted in accordance with the following stipulations.

#### STIPULATIONS

- I. For the undertakings of issuing a commercial or limited lease, or a ROW or RUE grant, the signatories agree that:
  - A. The APE will be defined as the depth and breadth of the seabed that could potentially be impacted by geotechnical testing.
  - B. A reasonable and good faith effort to carry out appropriate identification of historic properties within the APE is presented in BOEM’s Guidelines for Providing Geological and Geophysical, Hazards, and Archaeological Information Pursuant to 30 CFR Part 585 (hereafter, *Guidelines*; *see* 36 CFR § 800.4(b)(1)). Should BOEM wish to alter any archaeological survey-related information included in its *Guidelines*, BOEM will first consult with the signatories.
  - C. Prior to lease or grant under this part, BOEM will identify consulting parties, pursuant to 36 CFR 800.3(f). BOEM will consult on existing, non-proprietary information regarding the proposed undertaking and the geographic extent of the APE, as defined in Stipulation I.A. BOEM also will solicit additional information on historic properties within the APE from the consulting parties and the public.

- D. BOEM will require lessees and grantees to avoid adverse effects to historic properties where practicable through lease stipulations. Prior to issuing a lease or grant under this part, BOEM will record a finding of *No historic properties affected*, consistent with 36 CFR § 800.4(d). If adverse effects to historic properties cannot be avoided, BOEM will make a determination of *Historic properties affected* and follow 36 CFR § 800.4(d)(2); and resolve any adverse effect by following 36 CFR § 800.6.

II. For the undertakings of approving a plan, except as described under Stipulation IV (below), the signatories agree that:

- A. The APE will be defined as the depth and breadth of the seabed that could potentially be impacted by seafloor/bottom-disturbing activities associated with the undertakings; the onshore viewshed from which renewable energy structures would be visible; and where applicable, the depth and breadth, and viewshed of onshore locations where transmission lines come ashore until they connect to existing grid structures.
- B. The following constitute a reasonable and good faith effort to carry out appropriate identification of historic properties; *see* 36 CFR § 800.4(b)(1):
1. for the identification of historic properties within the seabed portion of the APE located on the OCS, historic property identification survey results generated in accordance with BOEM's *Guidelines*; and
  2. for the identification of historic properties within the seabed portion of the APE located in state waters, within the viewshed portion of the APE, and within the onshore terrestrial portion of the APE, historic property identification survey(s) conducted in a manner acceptable to the affected SHPO (or affected Tribe, if on tribal lands).
- C. Prior to approving a plan, BOEM will identify consulting parties, pursuant to 36 CFR 800.3(f). BOEM will consult on existing, non-proprietary information regarding the proposed undertaking and the geographic extent of the APE, as defined in Stipulation II.A. BOEM also will solicit from the consulting parties and the public additional information on historic properties within the APE.
- D. Prior to approving a plan, BOEM will treat all identified potential historic properties as historic properties eligible for inclusion on the National Register unless BOEM determines that a historic property is ineligible, pursuant to 36 CFR § 800.4(c).
- E. Prior to approving a plan, BOEM will avoid all identified historic properties by requiring the lessee to relocate elements of the proposed project which may affect properties, resulting in a finding of *No historic properties affected* (36 CFR § 800.4(d)(1)).
1. For the seabed portion of the APE, if a potential historic property is identified, and the lessee chooses to conduct additional investigations (e.g. diver investigation, Remotely Operated Vehicle [ROV] survey, or other methods),



and if additional investigations demonstrate that a potential historic property does not exist, then BOEM will make a determination of *No historic properties affected* and follow 36 CFR § 800.4(d)(1).

2. If a historic property may be affected, BOEM will evaluate the historic significance of the property, in accordance with 800.4(c); make a determination of *Historic properties affected* and follow 36 CFR § 800.4(d)(2); and resolve any adverse effects by following 36 CFR § 800.6.

III. For the undertakings of issuing a research or interim policy lease, except as described under Stipulation IV (below), the signatories agree that:

- A. The APE will be defined as the depth and breadth of the seabed that could potentially be impacted by seafloor/bottom-disturbing activities associated with the undertakings; the onshore viewshed from which renewable energy structures would be visible; and where applicable, the depth and breadth, and viewshed of onshore locations where transmission lines come ashore until they connect to existing grid structures.
- B. The following constitute a reasonable and good faith effort to carry out appropriate identification of historic properties; *see* 36 CFR § 800.4(b)(1):
  1. for the identification of historic properties within the seabed portion of the APE located on the OCS, historic property identification survey results generated in accordance with BOEM's *Guidelines*; and
  2. for the identification of historic properties within the seabed portion of the APE located in state waters, within the viewshed portion of the APE, and within the onshore terrestrial portion of the APE, historic property identification survey(s) conducted in a manner acceptable to the affected SHPO (or affected Tribe, if on tribal lands).
- C. Prior to issuing a research or interim policy lease under this part, BOEM will identify consulting parties, pursuant to 36 CFR 800.3(f). BOEM will consult on existing, non-proprietary information regarding the proposed undertaking and the geographic extent of the APE, as defined in Stipulation III.A. BOEM also will solicit from the consulting parties and the public additional information on historic properties within the APE.
- D. Prior to issuing a research or interim policy lease under this part, BOEM will require lessees and grantees to avoid adverse effects to historic properties where practicable through lease stipulations. Prior to issuing a lease or grant under this part, BOEM will record a finding of *No historic properties affected*, consistent with 36 CFR § 800.4(d). If adverse effects to historic properties cannot be avoided, BOEM will make a determination of *Historic properties affected* and follow 36 CFR § 800.4(d)(2); and resolve any adverse effect by following 36 CFR § 800.6.

#### IV. Exempted Categories

Pursuant to 36 CFR § 800.14(c), the signatories agree to exempt from Section 106 review the following categories of activities:

- A. Archaeological Sampling: Vibracores or other direct samples collected, by or under the supervision of a Qualified Marine Archaeologist, for the purposes – at least in part – of historic property identification or National Register eligibility testing and evaluation.
- B. Meteorological Towers and/or Buoys: Proposed construction and operation of meteorological towers and/or installation of meteorological buoys when the results of geophysical data collected meet the standards established in BOEM's *Guidelines* and either: 1) resulted in the identification of no archaeological site within the seabed portion of the APE for the tower and/or buoy, or 2) if the project APE can be relocated to an area that does not contain an archaeological site, if any such sites are identified during geophysical survey. The signatories agree that offshore meteorological towers and/or buoys have no effect on onshore historic properties since they are temporary in nature and indistinguishable from lighted vessel traffic.

V. Tribal Consultation. BOEM shall continue to consult with the Tribes throughout the implementation of this agreement in a government-to-government manner consistent with Executive Order 13175, Presidential memoranda, and any Department of the Interior policies, on subjects related to the undertakings.

#### VI. Public Participation

- A. Because BOEM and the signatories recognize the importance of public participation in the Section 106 process, BOEM shall continue to provide opportunities for public participation in Section 106-related activities, and shall consult with the signatories on possible approaches for keeping the public involved and informed throughout the term of the agreement.
- B. BOEM shall keep the public informed and may produce reports on historic properties and on the Section 106 process that may be made available to the public at BOEM's headquarters, on the BOEM website, and through other reasonable means insofar as the information shared conforms to the confidentiality clause of this agreement.

VII. Confidentiality. Because BOEM and the signatories agree that it is important to withhold from disclosure sensitive information such as that which is protected by NHPA Section 304 (16 U.S.C. § 470w-3) (e.g., the location, character and ownership of an historic resource, if disclosure would cause a significant invasion of privacy, risk harm to the historic resources, or impede the use of a traditional religious site by practitioners), BOEM shall:

- A. Request that each signatory inform the other signatories if, by law or policy, it is unable to withhold sensitive data from public release.

- B. Arrange for the signatories to consult as needed on how to protect such information collected or generated under this agreement.
- C. Follow, as appropriate, 36 CFR § 800.11(c) for authorization to withhold information pursuant to NHPA Section 304, and otherwise withhold sensitive information to the extent allowable by laws including the Freedom of Information Act, 5 U.S.C. § 552, through the Department of the Interior regulations at 43 CFR Part 2.
- D. Request that the signatories agree that materials generated during consultation be treated by the signatories as internal and pre-decisional until they are formally released, although the signatories understand that they may need to be released by one of the signatories if required by law.

#### VIII. Administrative Stipulations

- A. In coordinating reviews, BOEM shall follow this process:
  - 1. Standard Review: The signatories shall have a standard review period of thirty (30) calendar days for commenting on all documents which are developed under the terms of this agreement, from the date they are received by the signatory.
  - 2. Expedited Request for Review: The signatories recognize the time-sensitive nature of this work and shall attempt to expedite comments or concurrence when BOEM so requests. The expedited comment period shall not be less than fifteen (15) calendar days from the date such a request is received by the signatory.
  - 3. If a signatory cannot meet BOEM's expedited review period request, it shall notify BOEM in writing within the fifteen (15) calendar day period. If a signatory fails to provide comments or respond within the time frame requested by BOEM (either standard or expedited), then BOEM may proceed as though it has received concurrence from that signatory. BOEM shall consider all comments received within the review period.
  - 4. Unless otherwise indicated below, all signatories will send correspondence and materials for review via electronic media unless a signatory requests, in writing, that BOEM transmit the materials by an alternate method specified by that signatory. Should BOEM transmit the review materials by the alternate method, the review period will begin on the date the materials were received by the signatory, as confirmed by delivery receipt.
    - a. SC SHPO Review Specifications: All materials for formal review will be sent to SC SHPO in hard copy.
    - b. GA SHPO Review Specifications: All materials for formal review will be sent to GA SHPO in hard copy. Except in exceptional, emergency circumstances, BOEM acknowledges that GA SHPO cannot meet expedited review requests.



5. Each signatory shall designate a point of contact for carrying out this agreement and provide this contact's information to the other signatories, updating it as necessary while this agreement is in force. Updating a point of contact alone shall not necessitate an amendment to this agreement.
- B. Dispute Resolution. Should any signatory object in writing to BOEM regarding an action carried out in accordance with this agreement, or lack of compliance with the terms of this agreement, the Signatories shall consult to resolve the objection. Should the Signatories be unable to resolve the disagreement, BOEM shall forward its background information on the dispute as well as its proposed resolution of the dispute to the ACHP. Within 45 calendar days after receipt of all pertinent documentation, the ACHP shall either: (1) provide BOEM with written recommendations, which BOEM shall take into account in reaching a final decision regarding the dispute; or (2) notify BOEM that it shall comment pursuant to 36 CFR § 800.7(c), and proceed to comment. BOEM shall take this ACHP comment into account, in accordance with 36 CFR § 800.7(c)(4). Any ACHP recommendation or comment shall be understood to pertain only to the subject matter of the dispute; BOEM's responsibility to carry out all actions under this agreement that are not subjects of dispute shall remain unchanged.
- C. Amendments. Any signatory may propose to BOEM in writing that this agreement be amended, whereupon BOEM shall consult with the signatories to consider such amendment. This agreement may then be amended when agreed to in writing by all signatories, becoming effective on the date that the amendment is executed by the ACHP as the last signatory.
- D. Coordination with other Federal Agencies. In the event that another Federal agency believes it has Section 106 responsibilities related to the undertakings which are the subject of this agreement, BOEM will request to coordinate its review with those other agencies. Additionally, that agency may attempt to satisfy its Section 106 responsibilities by agreeing in writing to the terms of this agreement and notifying and consulting with the SHPOs and the ACHP. Any modifications to this agreement that may be necessary for meeting that agency's Section 106 obligations shall be considered in accordance with this agreement.
- E. Adding Concurring Parties. In the event that another party wishes to assert its support of this agreement, that party may prepare a letter indicating its concurrence, which BOEM will attach to the agreement and circulate among the signatories.
- F. Term of Agreement.
  1. The agreement shall remain in full force for twenty-five (25) years from the date the agreement is executed, defined as the date the last signatory signs, unless otherwise extended by amendment in accordance with this agreement. The term is related to the standard length of the operations term of commercial leases, which is given at 30 CFR § 585.235.

2. The signatories agree to meet every five years, beginning from the date the agreement is executed, to discuss the agreement and to determine whether amendment or termination is necessary.

G. Termination.

1. If any signatory determines that the terms of the agreement cannot be carried out or are not being carried out, that signatory shall notify the other signatories in writing and consult with them to seek amendment of the agreement. If within sixty (60) calendar days of such notification, an amendment cannot be made, any signatory may terminate the agreement upon written notice to the other Signatories.
  2. If termination is occasioned by BOEM's final decision on the last plan considered under the Renewable Energy Regulations at 30 CFR § 585, BOEM shall notify the signatories and the public, in writing.
- H. Anti-Deficiency Act. Pursuant to 31 U.S.C. § 1341(a)(1), nothing in this agreement shall be construed as binding the United States to expend in any one fiscal year any sum in excess of appropriations made by Congress for this purpose, or to involve the United States in any contract or obligation for the further expenditure of money in excess of such appropriations.
- I. Existing Law and Rights. Nothing in this agreement shall abrogate existing laws or the rights of any consulting party or signatory to this agreement.
- J. Compliance with Section 106. Execution and implementation of this agreement evidences that BOEM has satisfied its Section 106 responsibilities for all aspects of these proposed undertakings by taking into account the effects of these undertakings on historic properties and affording the ACHP a reasonable opportunity to comment with regard to the undertakings.

bc: Official File

OREP Chron

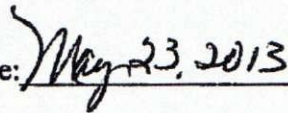
BOEM: OREP: BCarrier:jl: 05/9/2013: 703-787-1623

Filename: AEAU/ERB/Environmental Compliance/2011-ATL-009NC/106-G2G/South Atlantic  
PA

Programmatic Agreement concerning Review of Renewable Energy Activities under Section 106  
of National Historic Preservation Act



Maureen A. Bornholdt  
Program Manager  
Office of Renewable Energy Programs

Date: 



Programmatic Agreement concerning Review of Renewable Energy Activities under Section 106  
of National Historic Preservation Act

A handwritten signature in dark ink, appearing to read "W. Eric Emerson", written over a horizontal line.

Date: 6-26-13

Dr. W. Eric Emerson  
South Carolina State Historic Preservation Officer

Programmatic Agreement concerning Review of Renewable Energy Activities under Section 106  
of National Historic Preservation Act

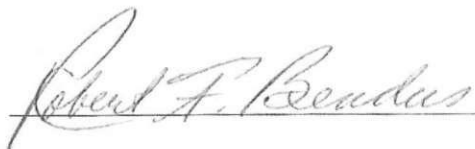


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Dr. David Crass  
Georgia Deputy State Historic Preservation Officer,  
Director, Historic Preservation Division

Date: 3 JUNE '15

Programmatic Agreement concerning Review of Renewable Energy Activities under Section 106  
of National Historic Preservation Act

A handwritten signature in cursive script, reading "Robert F. Bendus", written over a horizontal line.

Date: 6/19/13

Robert F. Bendus  
Florida State Historic Preservation Officer  
Director, Division of Historical Resources

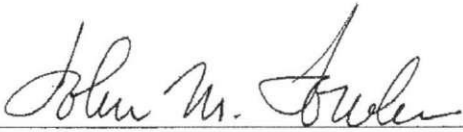


Programmatic Agreement concerning Review of Renewable Energy Activities under Section 106  
of National Historic Preservation Act

Winonah H. Haire Date 6/27/13

Dr. Winonah Haire  
Tribal Historic Preservation Officer  
Catawba Indian Nation

Programmatic Agreement concerning Review of Renewable Energy Activities under Section 106  
of National Historic Preservation Act

A handwritten signature in cursive script, reading "John M. Fowler", is written over a horizontal line.

Date: 5/31/13

John M. Fowler  
Executive Director  
Advisory Council on Historic Preservation

**PROGRAMMATIC AGREEMENT  
AMONG  
THE U.S. DEPARTMENT OF THE INTERIOR, BUREAU OF OCEAN ENERGY  
MANAGEMENT; NORTH CAROLINA STATE HISTORIC PRESERVATION  
OFFICER; AND THE ADVISORY COUNCIL ON HISTORIC PRESERVATION  
REGARDING  
REVIEW OF OUTER CONTINENTAL SHELF RENEWABLE ENERGY ACTIVITIES  
UNDER SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT**

WHEREAS, the Outer Continental Shelf Lands Act grants the Secretary of the Interior the authority to issue leases, easements, or rights-of-way on the Outer Continental Shelf (OCS) for the purpose of renewable energy development, including wind energy development (43 U.S.C. §1337(p)(1)(C)), and to promulgate regulations to carry out this authority (43 U.S.C. §1337(p)(8)); and,

WHEREAS, the Secretary delegated this authority to the former Minerals Management Service, now the Bureau of Ocean Energy Management (BOEM), and promulgated final regulations implementing this authority at 30 CFR §585; and,

WHEREAS, under the renewable energy regulations, the issuance of leases and subsequent approval of wind energy development on the OCS is a staged decision-making process that occurs in distinct phases; and,

WHEREAS, BOEM may issue commercial leases, limited leases, research leases, Interim Policy leases, Right-of-way (ROW) grants, or Right-of-use and easement (RUE) grants on the OCS; and,

WHEREAS, *Outer Continental Shelf* (OCS) means all submerged lands lying seaward and outside of the area of lands beneath navigable waters, as defined in Section 2 of the Submerged Lands Act (43 U.S.C. §1301), whose subsoil and seabed appertain to the United States and are subject to its jurisdiction and control (*see* 30 CFR §585.112); and,

WHEREAS, *Commercial lease* means a lease, issued under the renewable energy regulations, that specifies the terms and conditions under which a person can conduct commercial activities (*see* 30 CFR §585.112); and,

WHEREAS, *Commercial activities* mean, for renewable energy leases and grants, all activities associated with the generation, storage, or transmission of electricity or other energy products from a renewable energy project on the OCS, and for which such electricity or other energy product is intended for distribution, sale, or other commercial use, except for electricity or other energy products distributed or sold pursuant to technology-testing activities on a limited lease. This term also includes activities associated with all stages of development, including initial site characterization and assessment, facility construction, and project decommissioning (*see* 30 CFR §585.112); and,



WHEREAS, *Limited lease* means a lease, issued under the renewable energy regulations, that specifies the terms and conditions under which a person may conduct activities on the OCS that support the production of energy, but do not result in the production of electricity or other energy products for sale, distribution, or other commercial use exceeding a limit specified in the lease (see 30 CFR §585.112); and,

WHEREAS, *Research lease* means an OCS lease, ROW grant, and/or RUE grant, issued under the renewable energy regulations at 30 CFR § 585.238, to a Federal agency or a state for renewable energy research activities that support the future production, transportation, or transmission of renewable energy (see 30 CFR § 585.112); and,

WHEREAS, *Interim Policy lease* means a lease issued under the Interim Policy announced in November 2007, which allows for limited leasing for resource data collection and technology testing activities. The Interim Policy leases have a five-year term and provide no subsequent commercial rights (see 72 FR 62673); and,

WHEREAS, *ROW grant* means an authorization, issued under the renewable energy regulations to use a portion of the OCS for the construction and use of a cable or pipeline for the purpose of gathering, transmitting, distributing, or otherwise transporting electricity or other energy product generated or produced from renewable energy. A ROW grant authorizes the holder to install on the OCS cables, pipelines, and associated facilities that involve the transportation or transmission of electricity or other energy products from renewable energy projects (see 30 CFR § 585.112); and,

WHEREAS, *RUE grant* means an easement, issued under the renewable energy regulations, that authorizes use of a designated portion of the OCS to support activities on a lease or other use authorization for renewable energy activities. A RUE grant authorizes the holder to construct and maintain facilities or other installations on the OCS that support the production, transportation, or transmission of electricity or other energy products from any renewable energy resource (see 30 CFR § 585.112); and,

WHEREAS, *qualified marine archaeologist* means a person who meets the Secretary of the Interior's Professional Qualification Standards for Archaeology (48 FR 44738-44739), and has experience analyzing marine geophysical data; and,

WHEREAS, *qualified architectural historian* means a person who meets the Secretary of the Interior's Professional Qualification Standards for Architectural History (48 FR 44738-44739); and,

WHEREAS, any human skeletal remains discovered in state waters or on non-federal state lands during the course of archaeological investigations will be treated in accordance with the stipulations of North Carolina General Statute (G.S.) 70, Article 3; and,

WHEREAS, a permit from the North Carolina Office of State Archaeology is required prior to the initiation of any archaeological investigation within state waters (see North Carolina G.S. 121-23 through 121-25; 07 North Carolina Administrative Code (NCAC) 04.1002 et seq.) or on state-owned land (see G.S. 70-10 through 70-20; 07 NCAC 04R.0701 et seq.); and,

WHEREAS, under BOEM's renewable energy regulations, BOEM may review and approve, approve with modifications, or disapprove Site Assessment Plans (SAPs), Construction and Operations Plans (COPs), and General Activities Plans (GAPs), collectively "Plans" (*see* 30 CFR §585.613(e), 585.628(f), and 585.648(e)); and,

WHEREAS, Commercial leases, Limited leases, ROW grants, and RUE grants do not authorize the lessee or grantee to construct any facilities; rather, the lease or grant authorizes the lessee or grantee the right to use the leased area to develop Plans, which must be submitted to and approved by BOEM before the lessee or grantee implements its Plans (*see* 30 CFR §585.600 and 585.601); and,

WHEREAS, under the Interim Policy, BOEM may review and object to project Plans; and,

WHEREAS, BOEM determined that issuing leases and grants and approving Plans constitute undertakings subject to Section 106 of the National Historic Preservation Act (NHPA; 16 U.S.C. §470(f)), and its implementing regulations (36 CFR §800); and,

WHEREAS, the issuance of a commercial lease, limited lease, ROW grant, or RUE grant has the potential to affect historic properties insofar as it may lead to the lessee or grantee conducting geotechnical testing; and,

WHEREAS, *historic property* means any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (*see* 36 CFR §800.16(l)(1)); and,

WHEREAS, the issuance of a research lease or Interim Policy lease or approval of a Plan has the potential to affect historic properties insofar as it may lead to the lessee conducting geotechnical testing; constructing and operating site assessment facilities and renewable energy structures; and, placing and operating transmission cables, pipelines, and/or associated facilities that involve the transportation or transmission of electricity or other energy products from renewable energy projects; and,

WHEREAS, BOEM may issue multiple renewable energy leases and grants and approve multiple Plans associated with each lease or grant issued on the OCS; and,

WHEREAS, BOEM determined that the implementation of the Offshore Renewable Energy Program is complex, as the decisions on these undertakings are phased, pursuant to 36 CFR §800.14(b); and,

WHEREAS, 36 CFR §800.4(b)(2) provides for deferral of final identification and evaluation of historic properties when provided for in a Programmatic Agreement (Agreement) executed pursuant to 36 CFR §800.14(b); and,

WHEREAS, BOEM determined that the identification and evaluation of historic properties shall be conducted through a phased approach, pursuant to 36 CFR §800.4(b)(2), where the final identification of historic properties may occur after the issuance of a lease or grant and before the

approval of a Plan because lessees conduct site characterization surveys in preparation for Plan submittal (*see* 30 CFR 585); and,

WHEREAS, the deferral of final identification and evaluation of historic properties could result in the discovery of previously unknown historic properties that could significantly impact project planning, siting, and timelines; and,

WHEREAS, 36 CFR §800.14(b)(3) provides for developing programmatic agreements for complex or multiple undertakings and §800.14(b)(1) provides for using such agreements when effects on historic properties cannot be fully determined prior to approval of an undertaking (*see* §800.14(b)(1)(ii)), and for other circumstances warranting a departure from the normal Section 106 process (*see* §800.14(b)(1)(v)); and,

WHEREAS, BOEM, the North Carolina State Historic Preservation Officer (SHPO), and the Advisory Council on Historic Preservation (ACHP) are signatories to this Agreement, pursuant to 36 CFR §800.14; and,

WHEREAS, the Section 106 consultations described in this Agreement will be used to establish a process to identify historic properties located within the undertakings' Area(s) of Potential Effects (APE), to assess the potential effects, and to avoid, reduce, or resolve any adverse effects; and,

WHEREAS, BOEM shall make a reasonable and good faith effort to identify any Indian tribes that might attach religious and cultural significance to historic properties in the APE and invite them to be consulting parties; and,

WHEREAS, BOEM involves the public and identifies other consulting parties through notifications, requests for comments, existing renewable energy task forces, contact with the SHPO, and communications for these proposed actions;

NOW, THEREFORE, the signatories agree that Section 106 review shall be conducted in accordance with the following stipulations.

#### STIPULATIONS

- I. For the undertakings of issuing a commercial lease, limited lease, ROW grant, or RUE grant, the signatories agree:
  - A. The APE will be defined as the depth and breadth of the seabed that could potentially be impacted by geotechnical testing.
  - B. A reasonable and good faith effort to carry out appropriate identification of historic properties within the APE is presented in BOEM's *Guidelines for Providing Geological and Geophysical, Hazards, and Archaeological Information Pursuant to 30 CFR Part 585* (*Guidelines; see* 36 CFR § 800.4(b)(1)). Should BOEM wish to alter any archaeological survey-related information included in the *Guidelines*, BOEM will first consult with the signatories.



- C. Prior to lease or grant issuance under this part, BOEM will identify consulting parties, pursuant to 36 CFR 800.3(f). BOEM will consult on existing, non-proprietary information regarding the proposed undertaking and the geographic extent of the APE, as defined in Stipulation I.A. BOEM will also solicit additional information on potential historic properties within the APE from consulting parties and the public.
  - D. BOEM will treat all identified potential historic properties as eligible for inclusion in the National Register unless BOEM determines, and the SHPO agrees, that a property is ineligible, pursuant to 36 CFR §800.4(c).
  - E. Where practicable, BOEM will require lessees and grantees to avoid effects to historic properties through lease stipulations, resulting in BOEM recording a finding of No historic properties affected, consistent with 36 CFR § 800.4(d)(1). If effects to historic properties cannot be avoided, BOEM will make a finding of Historic properties affected and follow 36 CFR §800.4(d)(2). Any adverse effects will be resolved by following 36 CFR §800.6.
- II. For the undertakings of approving a Plan, except as described under Stipulation IV below, the signatories agree:
- A. The APE will be defined as the depth and breadth of the seabed that could potentially be impacted by seafloor/bottom-disturbing activities associated with the undertakings; the onshore viewshed from which renewable energy structures would be visible; and, if applicable, the depth, breadth, and viewshed of onshore locations where transmission cables or pipelines come ashore until they connect to existing power grid structures.
  - B. The following constitute a reasonable and good faith effort to carry out appropriate identification of historic properties (*see* 36 CFR § 800.4(b)(1)):
    - 1. For the identification of historic properties within the seabed portion of the APE located on the OCS, historic property identification survey results generated in accordance with BOEM's *Guidelines*.
    - 2. For the identification of non-architectural historic properties within the seabed portion of the APE located in state submerged lands or within the onshore terrestrial portion of the APE, historic property identification conducted in accordance with the Office of State Archaeology (OSA) *Guidelines for Preparation of Archaeological Survey Reports in North Carolina*. BOEM will request the developer to coordinate with the SHPO prior to the initiation of any such identification efforts.
    - 3. For the identification of architectural historic properties within the APE, historic property identification conducted by a Qualified Architectural Historian in accordance with the standards laid forth in the North Carolina SHPO's *Architectural Survey Manual, Survey Database Data Entry*

*Manual, and Digital Photography for Historic Property Surveys and National Register Nominations.*

- C. Prior to approving a Plan, BOEM will identify consulting parties, pursuant to 36 CFR 800.3(f). BOEM will consult on existing, non-proprietary information regarding the proposed undertaking and the geographic extent of the APE, as defined in Stipulation II.A. BOEM will also solicit from the consulting parties and the public additional information on potential historic properties within the APE.
  - D. BOEM will review the results of the identification efforts and determine which remote sensing targets and/or anomalies are potential historic properties and which are not. BOEM will treat all identified potential historic properties as eligible for inclusion in the National Register unless BOEM determines, and the SHPO agrees, that a property is ineligible, pursuant to 36 CFR § 800.4(c).
  - E. Where practicable, as a condition of Plan approval, BOEM will require the lessee to relocate elements of the proposed project that may affect potential historic properties, resulting in BOEM recording a finding of *no historic properties affected*, consistent with 36 CFR § 800.4(d)(1).
    - 1. If effects to identified properties cannot be avoided, BOEM will evaluate the National Register eligibility of the properties, in accordance with 36 CFR § 800.4(c).
      - a. If BOEM determines all of the properties affected are ineligible for inclusion in the National Register, and the SHPO agrees, BOEM will make a finding of *no historic properties affected*, consistent with 36 CFR § 800.4(d)(1).
      - b. If BOEM determines any of the properties affected are eligible for inclusion in the National Register, and the SHPO agrees, BOEM will make a finding of *historic properties affected*, consistent with 36 CFR § 800.4(d)(2), and BOEM will make an assessment of adverse effects, consistent with 36 CFR § 800.5. Any adverse effects will be resolved by following 36 CFR § 800.6.
      - c. If the SHPO disagrees with BOEM's determination regarding whether an affected property is eligible for inclusion in the National Register, or if the Council or the Secretary so request, the agency official shall obtain a determination of eligibility from the Secretary pursuant to 36 CFR part 63 (36 CFR § 800.4(c)(2)).
- III. For the undertakings of issuing a Research lease or Interim Policy lease, except as described under Stipulation IV below, the signatories agree that:
- A. The APE will be defined as the depth and breadth of the seabed that could potentially be impacted by seafloor/bottom-disturbing activities associated with

the undertakings; the onshore viewshed from which renewable energy structures would be visible; and, if applicable, the depth, breadth, and viewshed of onshore locations where transmission cables or pipelines come ashore until they connect to existing power grid structures.

- B. The following constitute a reasonable and good faith effort to carry out appropriate identification of historic properties (*see* 36 CFR § 800.4(b)(1)):
1. For the identification of historic properties within the seabed portion of the APE located on the OCS, historic property identification survey results generated in accordance with BOEM's *Guidelines*.
  2. For the identification of non-architectural historic properties within the seabed portion of the APE located in state submerged lands or within the onshore terrestrial portion of the APE, historic property identification conducted in accordance with the Office of State Archaeology (OSA) *Guidelines for Preparation of Archaeological Survey Reports in North Carolina*. BOEM will request the developer to coordinate with the SHPO prior to the initiation of any such identification efforts.
  3. For the identification of architectural historic properties within the APE, historic property identification conducted by a Qualified Architectural Historian in accordance with the standards laid forth in North Carolina SHPO's *Architectural Survey Manual*, *Survey Database Data Entry Manual*, and *Digital Photography for Historic Property Surveys and National Register Nominations*.
- C. Prior to issuing a research lease or Interim Policy lease under this part, BOEM will identify consulting parties, pursuant to 36 CFR 800.3(f). BOEM will consult on existing, non-proprietary information regarding the proposed undertaking and the geographic extent of the APE, as defined in Stipulation III.A. BOEM also will solicit from the consulting parties and the public additional information on potential historic properties within the APE.
- D. BOEM will review the results of the identification efforts and determine which remote sensing targets and/or anomalies are potential historic properties and which are not. BOEM will treat all identified properties as eligible for inclusion in the National Register unless BOEM determines, and the SHPO agrees, that a property is ineligible, pursuant to 36 CFR § 800.4(c).
- E. Where practicable, BOEM will require lessees and grantees to avoid effects to historic properties through lease stipulations, resulting in BOEM recording a finding of No historic properties affected, consistent with 36 CFR § 800.4(d)(1). If effects to historic properties cannot be avoided, BOEM will make a finding of Historic properties affected and follow 36 CFR § 800.4(d)(2). Any adverse effects will be resolved by following 36 CFR § 800.6.



- IV. Activities exempt from review. The signatories agree to exempt from Section 106 review the following categories of activities because they have little or no potential to affect an historic property's National Register qualifying characteristics:
- A. Archaeological Sampling: Vibracores or other direct samples collected, by or under the supervision of a Qualified Marine Archaeologist, for the purposes—at least in part—of historic property identification or National Register eligibility testing and evaluation.
  - B. Meteorological Towers and/or Buoys: Proposed construction, installation, and operation of meteorological towers and/or buoys when the results of geophysical data collected meet the standards established in BOEM's *Guidelines* and either: 1) resulted in the identification of no archaeological site within the seabed portion of the APE for the tower and/or buoy, or 2) if the project can be relocated so that the APE does not contain an archaeological site, if any such sites are identified during geophysical survey. The signatories agree that offshore meteorological towers and/or buoys have no effect on onshore historic properties since they are temporary in nature and indistinguishable from lighted vessel traffic.
- V. Tribal Consultation. BOEM shall continue to consult with affected Tribes throughout the implementation of this Agreement in a government-to-government manner consistent with Executive Order 13175, Presidential memoranda, and any Department of the Interior policies, on subjects related to the undertakings.
- VI. Public Participation
- A. Because BOEM and the signatories recognize the importance of public participation in the Section 106 process, BOEM shall continue to provide opportunities for public participation in Section 106-related activities, and shall consult with the signatories on possible approaches for keeping the public involved and informed throughout the term of this Agreement.
  - B. BOEM shall keep the public informed and may produce reports on historic properties and on the Section 106 process that may be made available to the public at BOEM's headquarters, on the BOEM website, and through other reasonable means insofar as the information shared conforms to the confidentiality clause of this Agreement.
- VII. Confidentiality. Because BOEM and the signatories agree that it is important to withhold from disclosure sensitive information such as that which is protected by NHPA Section 304 (16 U.S.C. § 470w-3) and North Carolina G.S 70-18 (e.g., the location, character, and ownership of an historic resource, if disclosure would cause a significant invasion of privacy, risk harm to the historic resources, or impede the use of a traditional religious site by practitioners), BOEM shall:
- A. Request that each signatory inform the other signatories if, by law or policy, it is unable to withhold sensitive data from public release.

- B. Arrange for the signatories to consult as needed on how to protect such information collected or generated under this Agreement.
- C. Follow, as appropriate, 36 CFR § 800.11(c) for authorization to withhold information pursuant to NHPA Section 304, and otherwise withhold sensitive information to the extent allowable by laws including the Freedom of Information Act, 5 U.S.C. § 552, through the Department of the Interior regulations at 43 CFR Part 2 and North Carolina G.S. 70-18.
- D. Request that the signatories agree that materials generated during consultation be treated by the signatories as internal and pre-decisional until they are formally released, although the signatories understand that they may need to be released by one of the signatories if required by law.

#### VIII. Administrative Stipulations

- A. In coordinating reviews, BOEM shall follow this process:
  - 1. Standard Review: The signatories shall have a standard review period of thirty (30) calendar days for commenting on all documents which are developed under the terms of this Agreement, from the date they are received by the signatory.
  - 2. Expedited Request for Review: The signatories recognize the time-sensitive nature of this work and shall attempt to expedite comments or concurrence when BOEM so requests. The expedited comment period shall not be less than fifteen (15) calendar days from the date such a request is received by the signatory.
  - 3. If a signatory cannot meet BOEM's expedited review period request, it shall notify BOEM in writing within the fifteen (15) calendar-day period.
  - 4. If a signatory fails to provide comments or respond within the time frame requested by BOEM (either standard or expedited), then BOEM may proceed as though it received concurrence. BOEM shall consider all comments received within the review period.
  - 5. Unless otherwise indicated below, all signatories will send correspondence and materials for review via electronic media unless a signatory requests, in writing, that materials be transmitted by an alternate method specified by that signatory. Should BOEM transmit the review materials by the alternate method, the review period will begin on the date the materials were received by the signatory, as confirmed by delivery receipt.
  - 6. Each signatory shall designate a point of contact for carrying out this Agreement and provide this contact's information to the other signatories, updating it as necessary while this Agreement is in force. Updating a

point of contact alone shall not necessitate an amendment to this Agreement.

- B. **Dispute Resolution.** Should any signatory object in writing to BOEM regarding an action carried out in accordance with this Agreement, or lack of compliance with the terms of this Agreement, the signatories shall consult to resolve the objection. Should the signatories be unable to resolve the disagreement, BOEM shall forward its background information on the dispute as well as its proposed resolution of the dispute to the ACHP. Within forty-five (45) calendar days after receipt of all pertinent documentation, the ACHP shall either: (1) provide BOEM with written recommendations, which BOEM shall take into account in reaching a final decision regarding the dispute; or (2) notify BOEM that it shall comment pursuant to 36 CFR § 800.7(c), and proceed to comment. BOEM shall take this ACHP comment into account, in accordance with 36 CFR § 800.7(c)(4). Any ACHP recommendation or comment shall be understood to pertain only to the subject matter of the dispute; BOEM's responsibility to carry out all actions under this Agreement that is not subjects of dispute shall remain unchanged.
- C. **Amendments.** Any signatory may propose to BOEM in writing that this Agreement be amended, whereupon BOEM shall consult with the signatories to consider such amendment. This Agreement may then be amended when agreed to in writing by all signatories, becoming effective on the date that the amendment is executed by the ACHP as the last signatory.
- D. **Coordination with other Federal agencies.** In the event that another Federal agency believes it has Section 106 responsibilities related to the undertakings which are the subject of this Agreement, BOEM will request to coordinate its review with those other agencies. Additionally, that agency may attempt to satisfy its Section 106 responsibilities by agreeing in writing to the terms of this Agreement and notifying and consulting with the SHPO and the ACHP. Any modifications to this Agreement that may be necessary for meeting that agency's Section 106 obligations shall be considered in accordance with this Agreement.
- E. **Adding Concurring Parties.** In the event that another party wishes to assert its support of this Agreement, that party may prepare a letter indicating its concurrence, which BOEM will attach to this Agreement and circulate among the signatories.
- F. **Terms of Agreement.**
  - 1. This Agreement shall remain in full force for twenty-five (25) years from the date this Agreement is executed, defined as the date the last signatory signs, unless otherwise extended by amendment in accordance with this Agreement. The term is related to the standard length of the operations term of commercial leases, which is given at 30 CFR § 585.235.



2. The signatories agree to meet every five years, beginning from the date the agreement is executed, to discuss the agreement, to determine whether amendment or termination is necessary, and to evaluate the adequacy of information exchange between the parties.
3. If requested by any signatory, the parties will meet or teleconference annually to review activities conducted under the agreement.
4. BOEM agrees to share updated information on renewable energy activities offshore North Carolina via the bureau via the Bureau's state activities webpage at: <http://www.boem.gov/State-Activities-North-Carolina> and via the Historic Preservation Program Activities webpage at: <http://www.boem.gov/Renewable-Energy/Historic-Preservation-Activities>, and additionally through the North Carolina Intergovernmental Renewable Energy Task Force of which the SHPO is a member. Notice of updates to the Historic Preservation webpage pursuant to Section 106 activities under this Agreement or relevant to the SHPO will be provided by BOEM to the SHPO via email message to: [environmental.review@ncdcr.gov](mailto:environmental.review@ncdcr.gov).

G. Termination.

1. If any signatory determines that the terms of this Agreement cannot be carried out or are not being carried out, that signatory shall notify the other signatories in writing and consult with them to seek amendment of the Agreement. If within sixty (60) calendar days of such notification, an amendment cannot be made, any signatory may terminate the Agreement upon written notice to the other signatories.
2. If termination is occasioned by BOEM's final decision on the last Plan considered under the Renewable Energy Regulations, BOEM shall notify the signatories and the public, in writing.

H. Anti-Deficiency Act. Pursuant to 31 U.S.C. § 1341(a)(1), nothing in this Agreement shall be construed as binding the United States to expend in any one fiscal year any sum in excess of appropriations made by Congress for this purpose, or to involve the United States in any contract or obligation for the further expenditure of money in excess of such appropriations.

I. Existing Law and Rights. Nothing in this Agreement shall abrogate existing laws or the rights of any consulting party or signatory to this Agreement.

J. Compliance with Section 106. Execution and implementation of this Agreement evidences that BOEM satisfied its Section 106 responsibilities for all aspects of these proposed undertakings by taking into account the effects of these undertakings on historic properties and affording the ACHP a reasonable opportunity to comment with regard to the undertakings.

Programmatic Agreement for Outer Continental Shelf Renewable Energy Activities

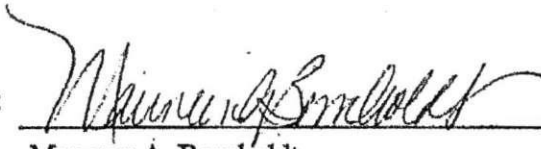
**AGREED**

Execution of this Agreement by BOEM, the SHPO, and the ACHP, and the implementation of its terms are evidence that BOEM has taken into account the effects of renewable energy activities on historic properties.

**SIGNATORIES**

**U.S. Department of the Interior, Bureau of Ocean Energy Management**

By:

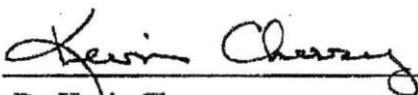
  
Maureen A. Bornholdt  
Program Manager  
Office of Renewable Energy Programs

Date:

4-9-14

**North Carolina State Historic Preservation Officer**

By:

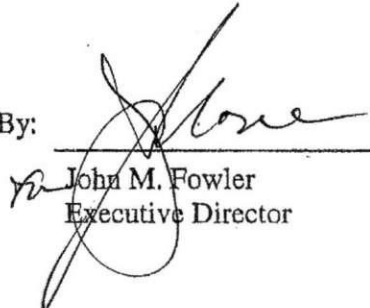
  
Dr. Kevin Cherry  
State Historic Preservation Officer

Date:

5/6/2014

**Advisory Council on Historic Preservation**

By:

  
John M. Fowler  
Executive Director

Date:

June 6, 2014



# United States Department of the Interior

NATIONAL PARK SERVICE

1849 C Street, N.W.

Washington, D.C. 20240

IN REPLY REFER TO:

~~MAR~~ 7 2013

## Memorandum

To: Director, Bureau of Ocean Energy Management

From: Director *Reagan D. Deel*

Subject: Comments on Bureau of Ocean Energy Management Notice of Intent to Prepare Compliance and Call for Information and Nominations for Commercial Wind Leasing on the Outer Continental Shelf Offshore North Carolina (BOEM-2012-0088 & BOEM-2012-0090)

The National Park Service (NPS) has reviewed the Bureau of Ocean Energy Management's (BOEM) Notice of Intent (NOI) to Prepare an Environmental Assessment (EA) and Call for Information and Nominations for Commercial Wind Leasing on the Outer Continental Shelf (OCS) offshore North Carolina. The NPS appreciates the opportunity to engage and submits the attached detailed scoping comments for your consideration in the preparation of the appropriate compliance documents. We appreciate the cooperation that our two agencies have on this issue, especially the preparation of the visual simulation study related to potential wind energy development on the OCS offshore North Carolina. The cooperation has enabled the NPS to be better informed of BOEM's coastal wind energy program and the visual and biological impacts that could result from wind energy development in coastal waters.

The NPS joins BOEM in supporting the Department of the Interior's effort to be "Smart from the Start" in planning and permitting renewable energy projects to ensure that they are sited, constructed, and operated in a manner that is protective of the units of our National Park System. Because no commercial wind energy projects have yet been built in U.S. waters, and we do not yet fully understand the actual short and long-term impacts associated with doing so, nor the efficacy of mitigation measures, the NPS urges a cautious approach in considering granting leases for the siting of facilities in waters off the coast of national park units.

In brief, the NPS comments provide relevant background on Cape Hatteras National Seashore, Cape Lookout National Seashore, and Wright Brothers National Memorial, which could be impacted by wind development along the North Carolina coast, and highlight specific issues that should be evaluated in the compliance documents. These three units of the National Park System have been set aside by Congress as national natural and cultural treasures and are visited by park visitors from across the country and around the world. Visitors are drawn to the parks' expansive, unobstructed ocean views, primitive beaches, recreational and wildlife viewing opportunities, dark night skies, and iconic historic lighthouses.



The NPS has concerns, primarily relating to potential visual impacts, regarding Call Area Kitty Hawk relative to Cape Hatteras National Seashore and Wright Brothers National Memorial. The NPS has no comments on Call Area Wilmington West and Wilmington East. During the public scoping meetings on the Call and NOI, BOEM invited the public to provide input on potential wind energy development along the full coast of North Carolina. Given this invitation and the scope of the wind simulation study which is discussed in the Call, we have included information in our comments germane to Cape Hatteras and Cape Lookout National Seashores on potential offshore wind development beyond Call Area Kitty Hawk.

Specifically, the NPS requests that OCS blocks within 26 nautical miles (nmi) of these two national seashores be excluded from the designation of the Wind Energy Area (WEA) and from leasing to protect scenic ocean views. This request is based on the results of the wind simulation study and the theoretical limit of offshore visibility of 26 nmi for a 400 foot high wind turbine presented in the 2007 Programmatic Environmental Impact Statement prepared by the Minerals Management Service on Alternative Energy Development on the OCS. That distance may need to be greater for larger wind turbines if they are visible from the two national seashores. Our comments supplement earlier information we have already submitted to BOEM and the North Carolina Renewable Energy Intergovernmental Task Force.

In accordance with the NOI published in the Federal Register on December 13, 2012, the NPS formally requests to participate as a cooperating agency in the NEPA process. The NPS has special expertise regarding the resources and values of Wright Brothers National Memorial, Cape Hatteras National Seashore, and Cape Lookout National Seashore and the surrounding areas. Specifically, the NPS requests cooperating agency status in developing the compliance in order to ensure that pertinent NPS mission statements, legislative authorities, and policies are accounted for when developing any alternatives, related management actions, or options that could potentially affect units of the National Park System. In addition, the NPS welcomes future opportunities to discuss BOEM's level of environmental analysis for the leasing and siting phase of the planning process.

We appreciate your consideration of these comments and our request to become a fully cooperating agency and partner. If you have any questions or need additional information, please contact Dr. Herbert C. Frost, Associate Director, Natural Resource Stewardship and Science, at 202-208-3884, or Bryan Faehner, Southeast Regional Office Energy and Environmental Protection Specialist, at 202-513-7256.

Attachment

cc: Rachel Jacobson, Principal Deputy Assistant Secretary for Fish and Wildlife and Parks

## **Attachment**

### **National Park Service Scoping Comments**

#### **Notice of Intent to Prepare an Environmental Assessment (NOI) and Call for Information and Nominations for Commercial Wind Leasing on the Outer Continental Shelf Offshore North Carolina (Call)**

**February 2013**

The NPS offers these comments on the NOI and the Call to help ensure BOEM is fully informed of the outstanding, federally significant resources and values preserved within Cape Hatteras National Seashore, Cape Lookout National Seashore, and the Wright Brothers National Memorial. Moreover, we hope these comments are helpful in informing the preparation of the EA and designation of WEAs. These three units of the National Park System have been set aside by acts of Congress as national natural and cultural treasures and are visited by park visitors from across the country and around the world. Visitors are drawn to the parks' expansive, unobstructed ocean views; primitive beaches; recreational and wildlife viewing opportunities; pristine night skies; and iconic historic light houses.

For these and additional reasons described below, the NPS requests that BOEM exclude OCS blocks within Kitty Hawk WEA, or in any WEA off these two national seashores, where turbines could be seen during the day or night. As commercial and residential growth changes the character of the landscape along much of the country's coastline, protected places containing natural scenery will only become more scarce and more important. The introduction of offshore wind energy development will increase the presence and visibility of human development and reduce the sense of natural beauty and access to open ocean vistas off the country's coasts. Congress established the NPS managed national seashores to preserve these qualities and provide an increasingly rare opportunity for Americans to experience their shared natural and cultural heritage found along the Atlantic coast. Their value to the public is represented in part by their importance to local economies. In 2010, the NPS recorded over 3.2 million recreational visits to the two national seashores and Wright Brothers National Memorial, with a combined contribution of approximately \$162 million and 2,438 jobs to local communities.<sup>1</sup>

The NPS has strong concern regarding impacts to park scenery from Call Area Kitty Hawk, which begins approximately 6 nmi off the coast and extends eastward for 34 nmi. As noted in the Call, BOEM has not modified Call Area Kitty Hawk to address NPS concerns. The NPS will work closely with BOEM to use information provided below to make needed adjustments to Call Area Kitty Hawk before the designation of the WEA is made.

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<sup>1</sup> National Park Service. 2010. Economic Benefits to Local Communities from National Park Visitation and Payroll.





## Applicable Statutes and NPS Policy

The NPS has firm and clear mandates from Congress regarding its mission. The NPS Organic Act of 1916 requires the NPS "...to conserve the scenery and the natural and historic objects and wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations."<sup>2</sup> Congress amended the Organic Act in 1978 (the "Redwood Amendment"). It states:

The authorization of activities shall be construed and the protection, management, and administration of these areas shall be conducted in light of the high public value and integrity of the National Park System and shall not be exercised in derogation of the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided by Congress.<sup>3</sup>

The Senate committee report stated that under the Redwood Amendment, "The Secretary has an absolute duty, which is not to be compromised, to fulfill the mandate of the 1916 Act to take whatever actions and seek whatever relief as will safeguard the units of the national park system."<sup>4</sup>

In addition, our individual park units are created by Congress for specific purposes which must be carried out by the NPS. Cape Hatteras National Seashore, authorized by Congress in 1937 and established in 1953, was our country's first national seashore. Its enabling language states: ✓

...The said area shall be permanently reserved as a primitive wilderness and no development of the project or plan for the convenience of visitors shall be undertaken which would be incompatible with the preservation of the... physiographic conditions now prevailing in this area...<sup>5</sup>

Cape Lookout National Seashore was authorized by Congress in 1966 to "...preserve for public use and enjoyment an area in the state of North Carolina possessing outstanding natural and recreational values." The seashore was established "...for the general purposes of public outdoor recreation, including conservation of natural features contributing to public enjoyment."<sup>6</sup>

Finally, Wright Brothers National Memorial was authorized as Kill Devil Hill Monument National Memorial in 1927 and transferred from the War Department to the NPS in 1933. The iconic 60-foot granite monument perched atop Kill Devil Hill was dedicated in 1932 and was listed on the National Register of Historic Places on October 15, 1966. Congress renamed the park and designated it as Wright Brothers National Memorial in 1953.

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<sup>2</sup> 16 U.S.C. 1

<sup>3</sup> 16 U.S.C. 1a-1

<sup>4</sup> Senate Report 108-372

<sup>5</sup> Aug. 17, 1937, ch. 687, Sec. 4, 50 Stat. 670; June 29, 1940, ch. 459, Sec. 1, 54 Stat. 702; Mar. 6, 1946, ch. 50, 60 Stat. 32

<sup>6</sup> PL 89-366

The NPS Management Policies (2006) also direct the management of units of the National Park System and the NPS is expressly prohibited from allowing the “impairment” of park resources and values unless “...directly and specifically provided for by legislation or by the proclamation establishing the park.” (Section 1.4.4) According to Section 1.4.5, impairment can “result from sources or activities outside the park” and is an impact:

...that, in the professional judgment of the responsible NPS manager, would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values. Whether an impact meets this definition depends on the particular resources and values that would be affected; the severity, duration, and timing of the impact; the direct and indirect effects of the impact; and the cumulative effects of the impact in question and other impacts.

Section 1.4.5 also states that an impact would be more likely to constitute impairment to the extent that it affects a resource or value whose conservation is:

- Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park; or
- Key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park; or
- Identified in the park’s general management plan or other relevant NPS planning documents as being of significance.

Since the threshold at which impairment may occur is not always apparent, park managers are instructed in Section 1.4.7.1 to:

...apply a standard that offers greater assurance that impairment will not occur. The Service will do this by avoiding impacts that it determines to be unacceptable. These are impacts that fall short of impairment, but are still not acceptable within a particular park’s environment. Park managers must not allow uses that would cause unacceptable impacts...

Finally, if necessary in the future, the NPS is willing to discuss with BOEM our right-of-way (ROW) procedures for evaluating electricity transmission over, under, or through NPS property. In short, a ROW permit may only be issued under certain, stringent circumstances. According to Section 8.6.4.1 of NPS Management Policies, ROW permits are usually only issued pursuant to specific statutory authority, and generally only if there is no practicable alternative to such use of NPS lands. Furthermore, Section 4.8.1.1 of NPS Management Policies states that new development will not be placed in areas subject to wave erosion or active shoreline processes unless (1) the development is required by law; or (2) the development is essential to meet the park’s purposes, as defined by its establishing act or proclamation, and

- No practicable alternative locations are available;
- The development will be reasonably assured of surviving during its planned life span without the need for shoreline control measures; and

- Steps will be taken to minimize safety hazards and harm to property and natural resources.

### **Call Area Kitty Hawk**

The NPS requests that BOEM exclude OCS blocks within Kitty Hawk WEA where turbines could be seen. Given the results of the visual simulation study, coupled with ocean visibility data from Minerals Management Service's 2007 Alternative Energy Programmatic Environmental Impact Statement, that distance is no closer than 26.3 nmi for a 400 ft. tall wind turbine. The NPS would like to collaborate with BOEM on further analyses to determine the exact distance where the visibility of the turbines falls off and to evaluate the efficacy of mitigation such that turbines cannot be seen during the day and at night. That distance may need to be adjusted in the future as turbine design, height, and concentration changes. Appropriate distances from Cape Hatteras National Seashore will also be dependent on the proximity of proposed turbines to Bodie Island Lighthouse (164 feet tall), which has been fully restored and will for the first time be opened for visitors to climb and enjoy the viewshed. Due to the lighthouse's proximity to Nags Head, we project that tours to the top of the lighthouse will become an extremely popular visitor activity.

We have worked closely with BOEM to share our concerns early in the planning process in an effort to avoid unacceptable impacts to park scenery. On May 11, 2011, at the second BOEM North Carolina Task Force meeting, the NPS provided a presentation on the enabling legislation of the two national seashores, as well as information on important park resources and values that could be negatively impacted by inappropriately sited offshore wind development. We also presented the Task Force with a map of the two seashores showing a 20 nmi "area of high concern" overlaying OCS blocks identified by BOEM as Areas of Interest and as possible future WEAs.

The NPS appreciates BOEM's willingness to work with us in including language in the Call informing potential applicants that the NPS has raised concerns with BOEM over the potential impact of offshore wind energy development. We also appreciate the inclusion of text stating that BOEM has not modified Call Area Kitty Hawk to address our concerns but "may in the future determine that portions... may not be appropriate for commercial wind development."

### **Viewshed Simulations and Surveys**

The NPS thanks BOEM for collaborating with us on the development of the recently completed (July 2012) visual resource simulation study. As an active participant in the visual simulation process, the NPS understands that based on the current technology utilized by the contractor, the final simulations offer a realistic representation of how visible a wind energy facility in coastal waters would be from the ocean viewpoints off the national seashores and elsewhere along the coast of North Carolina. The study does not address, however, the cumulative visual effect of multiple projects at different distances simultaneously, with different turbine dimensions and design, layouts in non-uniform configurations, and turbines even taller than studied. Based on the study results, and the dimensions of the two turbine types depicted in the simulations, the



turbines were easily visible at 20 nmi offshore. As expected, the visual impact was greater from simulations prepared atop Cape Hatteras and Cape Lookout Light Stations.

During the public scoping meetings on the Call and NOI, BOEM invited the public to provide input on potential wind energy development along the full coast of North Carolina. Given this invitation and the scope of the wind simulation study that is discussed in the Call, we would like to request that, like Call Area Kitty Hawk, BOEM exclude OCS blocks from further consideration within Areas of Interest 3 and 4 where turbines could be seen. As discussed above, that distance is 26 nmi for a 400 foot tall wind turbine based on the visibility chart found in Minerals Management Service's 2007 Alternative Energy Programmatic Environmental Impact Statement. Again, that distance may need to be greater for larger wind turbines if they are visible from the two national seashores.

Based on current information, wind turbine development within Area of Interest 3 could likely be easily visible from Cape Lookout Lighthouse (163 feet tall) and Shackleford Banks within Cape Lookout National Seashore. In August 1985, the NPS and Department of Interior (DOI) recommended to Congress that 2,990 acres of Shackleford Banks be designated as a Wilderness Area under the Wilderness Act of 1964.

Area of Interest 4 is of particular concern to the NPS because it runs parallel to the shoreline of the parks for approximately 50 miles and is within much of the viewshed of both Cape Hatteras and Cape Lookout Lighthouses and beaches. If wind turbines were constructed along this primitive coastline, it would create a "fence" effect that would unacceptably impact unobstructed ocean views and the primitive wilderness qualities that park visitor's treasure. Since vessel traffic through the easternmost OCS blocks and the topography of the ocean floor also limit wind development opportunities, we encourage BOEM to discontinue consideration of this Area of Interest.

In conjunction with the visual simulations, the contractor also prepared a meteorological report that summarizes the general visibility conditions along the coastline where offshore wind energy development may occur. The contractor used visibility data from local airports and weather stations that report a maximum visibility of only 10 statute miles. As a result, the contractor had to extrapolate visibility out to 20 nmi. In doing so, it had to make a number of assumptions that were not peer reviewed. This is an important dimension of the meteorological report that the NPS recommends be highlighted by BOEM. It is important to note too that the contractor used a cut off of 20 nmi, the end distance for the visual study not the limit on how far one can actually see from shore.

The report notes that clear conditions, defined as being more than 50% of the period, occur approximately 70% of the days and approximately 75% of the nights on an annual basis. It also notes that wind turbines could potentially be visible beyond 20 nmi almost 20% of the days and nights from the national seashores. These conditions, when considered with the visitor survey information summarized below, indicate that visitors to the national seashores could expect to see turbines at any time of year out to at least 20 nmi and most likely beyond.

The NPS appreciates BOEM's efforts to solicit public comments on the visual simulations at the open house in Kitty Hawk, North Carolina, on January 8, 2013, and in Wilmington, North Carolina, on January 10, 2013. Nonetheless, only 12 and 32 members of the public, respectively, attended these two open houses. As such, the NPS would like to partner with BOEM in holding additional open houses within the parks to better engage park visitors as part of the preparation of the EA, especially during or near peak season, when the visiting public is more apt to be present and engaged. The effective use of the photographic and video simulations will require display of the materials as specified by BOEM's contractor. This will include high resolution large scale prints and use of appropriate video or computer equipment to assure the best representation of the potential offshore development.

We would also like to collaborate with BOEM on developing visual perception surveys as part of the preparation of the EA, especially as applied to park visitors. The NPS has specialized expertise in human dimensions and survey research that we would bring to such an effort. Our understanding is that BOEM is working with the University of Delaware on initiating a visual perception survey that will include a component to assess potential visitor reaction. We especially would like to work with you on this study. We believe that any visitor/community surveys conducted in association with the Call and NOI should incorporate the considerable data available focused on all types of visitors, including those members of the public who may not visit, but who may still value the existence of unobstructed views at national seashores.<sup>7</sup>

The NPS is ready to participate in the development and review of surveys to be conducted in the parks and is willing to assist in the set-up and display of the simulations for use in the survey process. We look forward to helping BOEM understand the needs and desires of our visitors. Cape Hatteras and Cape Lookout are integral to the Outer Banks community and the extraordinary experiences offered by the national seashores contribute to the long-term economic success of the community and our local partners.

### **Existing Visitor Use and Economic Impact Information**

The Outer Banks of North Carolina, which include the Cape Hatteras and Cape Lookout National Seashores and Wright Brothers National Memorial, has an extensive history in visitor surveys that have been performed to assure that agencies, local communities and private businesses continue to offer outstanding visitor services and maintain a vibrant tourism industry. While most visitation occurs from late spring to early fall, the Outer Banks receives a wide range of visitors throughout the year, with varying focus of activities and needs for visitor services. Not surprisingly, many of the visitors to the Outer Banks are drawn by the three park units and the unobstructed ocean views they afford.

In 2010, Cape Hatteras National Seashore received 2,193,292 recreation visits; Cape Lookout National Seashore received 530,181 recreation visits; and Wright Brothers National Memorial received 476,200 recreation visits. The NPS's Money Generation Model (MGM2) estimates the impacts these park visitors have on the local economy in terms of their contribution to sales, income, and jobs in the area. Based on visitation for Cape Hatteras National Seashore, the MGM2 model anticipates visitors spent \$108,475,000, which supported 1,615 jobs, and had

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<sup>7</sup> See NPS Management Policies Section 1.4.3



84,393 overnight stays at the park. Likewise, based on visitation for Cape Lookout National Seashore visitors spent \$37,276,000, which supported 572 jobs, and had 29,268 overnight stays at the park. At Wright Brothers National Memorial, visitors spent \$16,581,000, which supported 251 jobs.

The NPS encourages BOEM to consider the following studies in the preparation of the EA to better understand how offshore wind turbine development may diminish scenic views and thereby the number of park visitors who value unobstructed ocean views and travel to the national seashores.

In 2002, the NPS conducted a Visitor Services Study in conjunction with the University of Idaho that found that 67% of respondents had visited one or more park units in the Outer Banks group (which includes Cape Hatteras National Seashore, Wright Brothers National Memorial and Fort Raleigh National Historic Site) in the past. In the survey, 868 individuals responded to a question about the number of visits to Cape Hatteras National Seashore. The survey revealed that 32% were there for the first time, 27% had visited between two to four times, 15% between five to seven times, and 25% greater than eight times. In response to a question regarding the "importance of attributes in planning for the preservation of Cape Hatteras National Seashore for future generations" the number one item selected was "scenic views" (66% responded extremely important, 18% very important and 12% moderately important). When asked what visitors like most, a high response was given to "naturalness/lack of development" along with "beauty/scenery".<sup>8</sup>

The Outer Banks Visitor Bureau sponsored a year-long visitor study by North Carolina State University that was completed in June 2012. In the performance analysis grid for "best/worst things, places or activities," the natural scenery of the beach is rated as most important. Under "Intentions to Visit in the Near Future" -- during 2012 or 2013 -- 61% planned on coming back for one or two trips; 22% said they would be back three or four times; 5% said they would be back five or six times; and 14% would be back seven or more times. Only 2% responded they had no intention of coming back.<sup>9</sup>

A 2001 study from Strategic Marketing & Research Inc. (SM&R) for the Outer Banks Visitors Bureau found that one of the most defining characteristics of visitors to the Outer Banks is their loyalty. Visitors to the area average over one trip per year with a three year average of 3.6 trips. In any given year, approximately 59% (1999) of visitors are annual visitors. SM&R also found that the clean environment, beautiful beaches, fishing, and good restaurants were important to loyal visitors. Moreover, looking at new visitors who returned, things like scenic areas/drives, historic sites, and beautiful beaches are most important.<sup>10</sup>

SM&R conducted another report, sponsored by the Outer Banks Visitors Bureau, in May 2006, that looked at factors that motivated travel to the Outer Banks and what characteristics

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<sup>8</sup> University of Idaho. Summer 2002. Outer Banks Group Parks Visitor Study: Cape Hatteras National Seashore Visitors.

<sup>9</sup> Brothers, G., et al. 2012. Outer Banks, North Carolina Visitor Appraisal: A Critical Incidents and Loyalty Assessment. NC State University

<sup>10</sup> Strategic Marketing & Research Inc. 2001. Outer Banks Visitor Satisfaction Research: Research Findings.



differentiate the Outer Banks from other vacation options. The study found that “while among both summer and fall visitors, the area’s beautiful beaches were the primary influencer, scenic drives was the primary motivator in the winter.” Furthermore, the study also found:

Winter has the greatest number of first-time visitors. This continues the trend seen in fall that those coming to the area in the summer appear to be doing so over-and-over again while those visiting in the off season are exploring for the first time.<sup>11</sup>

### **NPS Resources**

The following resources are identified for consideration in the current EA and future environmental review documents assessing the potential impacts to park resources:

**Wright Brothers Memorial:** In 1932, a 60-foot granite monument perched atop 90-foot tall Kill Devil Hill was dedicated to commemorating the achievement of these two visionaries. The site provides a breathtaking view of the area from sound to sea and is listed on the National Register of Historic Places (NRHP). Approximately 360,000 visitors hike Kill Devil Hill to visit the Wright Brothers Memorial annually, which represents about 75% of Wright Brother National Memorial’s average annual visitation of 480,000.

**Bodie Island Light Station:** Operational in 1872, this 164 foot tall historic lighthouse is listed in the NRHP. Since 2009, the NPS has spent \$5.5 million dollars on restoration efforts that will for the first time this year make the top viewing platform accessible to the public. The park plans to conduct daily tours from 9 am to 5:45 pm, mid-April through early October, and is anticipating 63,000 visitors will take the tour annually.

**Cape Hatteras Light Station:** Built in 1870, this 206 foot tall historic light house, which is designated a National Historic Landmark (NHL), is one of the most iconic features of the National Seashore and the entire Outer Banks. Threats of destruction from shoreline erosion led to the successful relocation of the light station during the summer of 1999. According to its NHL nomination:

This lighthouse has become a national icon for American lighthouses. Its unique spiral banding on the tower is distinct and easy to recognize; most people have been exposed to its image or a rendering of that image at one time or another. Although there are many lighthouse construction types, most think of a tower similar to the one at Cape Hatteras when imagining a lighthouse. Cape Hatteras is the most frequently depicted lighthouse on calendars, postcards, souvenir mugs, hats, etc., and is included in logos created by various businesses, companies, etc, all over the United States. In 1972, Cape Hatteras Lighthouse was featured on a U.S. Postal Stamp as part of a National Park Service series. In the minds of many Americans, Cape Hatteras Lighthouse is the Nation's lighthouse.<sup>12</sup>

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<sup>11</sup> Strategic Marketing & Research Inc. 2006. Outer Banks Visitors Bureau Visitor Research: Wave 3.

<sup>12</sup> OMB No. 1024-0018

The park provides daily tours from mid-April through early October, 9 am to 4:30 spring and fall, and 9 am to 5:30 pm in the summer. The lighthouse averages 118,000 visitors on tours annually. Since 2009, the NPS has spent approximately \$1.5 million on restoration efforts.

Ocracoke Light Station: Finished in 1823, it is the oldest operating light station in North Carolina and the second oldest operating lighthouse in the nation. The lighthouse stands approximately 75 feet tall and was added to the NRHP in 1977.

Cape Lookout Light Station: Completed in 1859, this light house tower design was the first of its kind built on the Outer Banks. Standing 163 feet in height, this NRHP property is still an important and active aid to navigation. The lighthouse tower is open for climbing during the summer. In 2010, the NPS spent approximately \$500,000 on restoration of the lighthouse to provide the public with the opportunity to climb to the viewing platform. Since its opening, lighthouse visitation has steadily increased. In 2012, there were 11,111 visitors who climbed the lighthouse.

Shackleford Banks Proposed Wilderness Area: In August 1985, the NPS and DOI recommended to Congress that 2,990 acres be designated as a Wilderness Area under the Wilderness Act of 1964. The act defines wilderness as "...an area where the earth and its community of life are untrammelled by man...an area of undeveloped federal land retaining its primeval character and influence, without permanent improvements..."<sup>13</sup> According to the report to Congress, Shackleford Banks has "undulating high dunes and maritime forest enhance both the feeling of remoteness and the opportunities for solitude. All the island is scenic."

Night Sky: Cape Hatteras and Cape Lookout National Seashores have a naturally dark environment relative to the eastern seaboard. As the attached model of light pollution shows, the two national seashores are amongst the darkest environments along the Atlantic Coast (see Appendix). Moreover, the environment is largely devoid of vegetation that blocks the view of the sky, and the ocean side of the horizon is devoid of permanent lighting. This high-quality night sky photic environment is critical to the protection of park resources and values and is particularly important for wildlife management and visitor experience at the park. The parks manage several species of concern that are known to be sensitive to artificial light including sea turtles and migrating shore birds.<sup>14</sup> Due to the outstanding views of the night sky afforded to visitors, night sky presentations are among the most popular and widely attended interpretive programs offered. At Cape Hatteras National Seashore, interpretive park rangers provide highly popular night sky astronomy programs three times per week from mid-June through Labor Day as part of the summer program schedule. Cape Lookout National Seashore also provides night hikes and night sky astronomy programs.

Typical approaches used in daytime visual simulations may not adequately assess impacts at night. When considering potential impacts and methods of assessing the visual impact at night, an analysis must account for how the eye sees differently in low light. For example, at night,

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<sup>13</sup> Pub.L. 88-577

<sup>14</sup> Witherington, B.E., and R. Erik Martin. 1996. Understanding, Assessing and Resolving Light Pollution Problems on Sea Turtle Nesting Beaches. Florida Marine Research Institute Technical Report.

foveal vision (pertaining to the center of focus) is greatly diminished and peripheral vision is enhanced. As a result, the visual scene is dominated by objects off the center of focus. A flashing beacon, such as those typically installed on offshore wind turbines, is easily noticed as much as 80° off axis of sight.

Because people tend to rely more heavily on peripheral vision at night, the portion of the horizon affected by the wind turbines in terms of night time visibility will vastly exceed the physical footprint of a wind energy development. This is especially true since compared to day time vision, dark-adapted vision provides increased sensitivity to movement and changing conditions such as blinking lights. Thus, regardless of where a visitor looks (in the general direction of the development), their peripheral vision will pick up the light from the turbines. As a result, the visual impact of an illuminated structure will extend far beyond the portion of the horizon spanned by the project, impacting the majority of the possible viewing angles from a given point.

Federally-Listed Threatened and Endangered Species: As stewards of public lands, the NPS protects wildlife species through a variety of internal programs, but also strives to be an active conservation partner with other federal and non-federal agencies and organizations to help protect species and their habitats. While NPS areas currently harbor spatially important refugia that encourage species and ecosystem resiliency, many species transit NPS areas during migration (e.g., breeding, stopover or wintering habitats or migration terminus) or everyday activity. The NPS supports the views expressed by the Fish and Wildlife Service in their February 11, 2013, comment letter; and the National Marine Fisheries Service in their January 17, 2013, comment letter, regarding the general lack of data regarding the use of OCS blocks within Call Area Kitty Hawk by birds, bats, sea turtles, fisheries, marine mammals, and other aquatic resources that may be listed as federally-threatened or endangered species. Five species of sea turtles and Piping Plovers are of particular concern to the NPS since the national seashores serve as vital habitat.

The Loggerhead, Green, Leatherback, Hawksbill, and Kemp's Ridley sea turtles can all be found at Cape Hatteras and Cape Lookout National Seashores. In the 1970's, the Leatherback, Kemp's Ridley, and Hawksbill were listed under the Federal Endangered Species Act as endangered and the Loggerhead as threatened. The Green population that nests in the Northwest Atlantic was designated as threatened on July 28, 1978. Non-breeding sea turtles of all five species can be found in the near-shore waters during much of the year. In 2012, 222 sea turtle nests (219 Loggerhead nests, two Green nests, and one Leatherback nest) and 169 false crawls were documented at Cape Hatteras National Seashore. At Cape Lookout National Seashore, there were 157 nests and 161 false crawls in 2011. All sea turtle nests were Loggerheads.

In 1986, the Atlantic coast population of the Piping Plover was listed as threatened under the Endangered Species Act. North Carolina is currently the only state on the Atlantic Coast that hosts Piping Plover during all phases of their annual cycle. There is evidence that Piping Plovers and other migrant shorebird species may travel over the open Atlantic to reach Caribbean islands. In 2012, 15 Piping Plover pairs and 22 nests were identified at Cape Hatteras National Seashore. A total of 51 pairs of Piping Plovers nested at Cape Lookout National Seashore. The birds at Cape Lookout National Seashore accounted for 75% of the nesting pairs in North Carolina. Forty-three pairs nested on North Core Banks and eight pairs on South Core Banks.





Wildlife viewing is a valued recreational activity. Visitors come to these parks to not only bird watch, but view marine mammals and turtles in their annual migrations through the adjacent and ancient movement corridors.

**Sediment Transport:** Barrier islands and peninsulas are dynamic and change in response to natural processes that are tied to wind, waves and tides. While it is understood that offshore wind farms alter wind and wave fields, the effect of these changes on sediment transport processes and barrier island geomorphology are not well understood. NPS Management Policies Section 4.8.1 require that natural shoreline processes continue without interference and that “[w]here human activities or structures have altered the nature or rate of natural shoreline processes, the Service will, in consultation with appropriate state and federal agencies, investigate alternatives for mitigating the effects of such activities or structures and for restoring natural conditions.” The NPS requests that BOEM carefully consider, to the extent possible, the potential impacts of changes in wind and wave fields on sediment processes. We stand ready to work with BOEM to better understand these important issues.

### **Special Consideration for Cape Hatteras Light Station**

As a NHL and revered historic resource, it is critical that Cape Hatteras Light Station retains a high level of integrity. Specifically, section 110(f) of the National Historic Preservation Act calls for federal agencies to minimize harm to NHLs to the “maximum extent possible.”

Cape Hatteras Light Station’s historic purpose, which is to serve as a navigation aid to vessels navigating the dangerous waters of the Outer Banks, makes the relationship between the lighthouse and the distant water particularly significant. The NPS is concerned that the appearance of turbines in the viewshed of the lighthouse diminishes the light station’s integrity of “setting.” In addition, to complying with Section 106 of the National Historic Preservation Act (NHPA), BOEM will also need to comply with Section 110(f) of NHPA, which states:

Prior to the approval of any Federal undertaking which may directly and adversely affect any National Historic Landmark, the head of the responsible Federal agency shall, to the maximum extent possible, undertake such planning and actions as may be necessary to minimize harm to such landmark, and shall afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on the undertaking.<sup>15</sup>

Moreover, 36 CFR 800.10 “Special requirements for protecting National Historic Landmarks” of the Advisory Council on Historic Preservation’s (ACHP) Section 106 regulations provides specifics about how federal agencies will meet the statutory requirement of Section 110(f), including their consultation with the ACHP. Section 800.10(c) “Involvement of the Secretary” requires that:

The agency official shall notify the Secretary [of Interior] of any consultation involving a National Historic Landmark and invite the Secretary [of Interior] to

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<sup>15</sup> 16 U.S.C. 470h-2(f), Section 110(f)

participate in the consultation where there may be an adverse effect. The Council may request a report from the Secretary [of Interior] under section 213 of the act to assist in the consultation.<sup>16</sup>

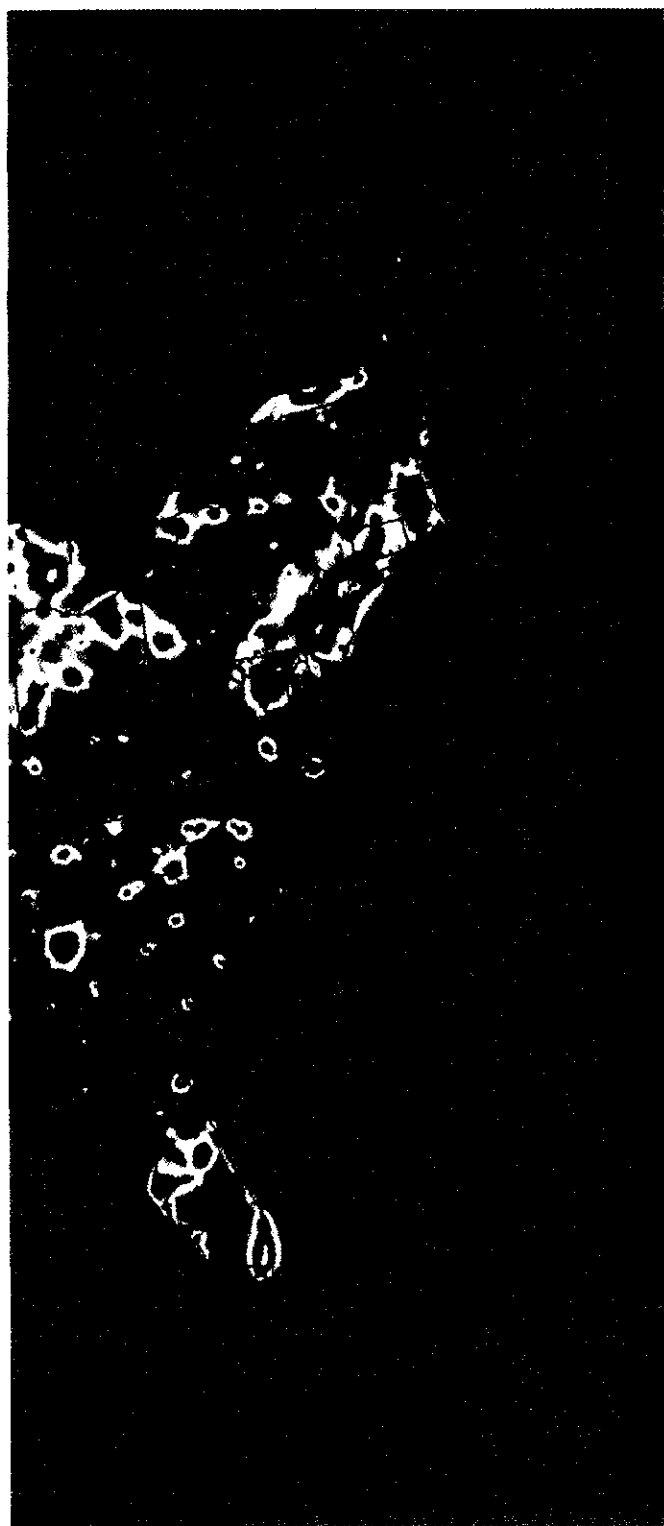
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<sup>16</sup> *Ibid.*



Appendix 1.

NPS Model of Average Sky Brightness – Eastern United States





February 20, 2015

Program Manager  
Office of Renewable Energy  
Bureau of Ocean Energy Management  
381 Elden Street, HM 1328  
Herndon, Virginia 20170- 4817

To Whom It May Concern:

On behalf of the Bald Head Association (BHA) and the Bald Head Island Stage II Association (Stage II), we submit the following comments on the Commercial Wind Lease Issuance and Site Assessment Activities on the Atlantic Outer Continental Shelf Offshore North Carolina Environmental Assessment for your consideration.

We want to thank the Bureau of Ocean Energy Management (BOEM) for its continued efforts to inform and engage the public on this important issue.

Combined, the BHA and Stage II Association represent more than 2,000 properties and their owners on Bald Head Island, North Carolina (BHI). BHI is located in southeastern North Carolina where the Cape Fear River and Atlantic Ocean intersect. The island is only accessible via passenger ferry. A vast majority of the Island's beaches runs parallel with the federal navigational channel that leads to the Port of Wilmington just up the river. We collectively represent BHI property owners who will be most affected by the issuance of the leases for this portion of North Carolina.

The Environmental Assessment (EA) identified above considers the impact of construction and operations of site assessment activities of two Call Areas previously identified by BOEM as Wilmington West and Wilmington East. Our comments are intended for consideration of the Wilmington West and Wilmington East Call Areas. We have no comment on the Kitty Hawk Call Area.

While the EA addresses activities such as tower and buoy installation, maintenance and data collection, it does not address the full impact that Bald Head Island and the larger region as a whole will experience if these two Call Areas are allowed to remain in their present form in their present locations. Further, the EA does not address the potential for different types of turbines in non-uniform configuration that are even taller than the towers simulated. It is for these reasons that BHA and Stage II are jointly commenting on the EA.

We support the concept of wind energy off the coast of North Carolina; however, we respectfully request that, like the Kitty Hawk Call Area model, both Wilmington Call Areas be moved farther offshore to avoid the visual impact their proposed locations will have on this community's ambiance, property values and tourism revenue.

### **Ambiance**

Like many coastal communities, BHI is a combined residential community and popular tourist destination. Unlike most, however, BHI property owners not only make a financial investment in their homes, they also make an unspoken commitment to 'live in harmony with nature.' This community considers environmental stewardship to be the hallmark of its existence and places an extremely high value on the scenic and aesthetic value of their homes, of their beaches and of the Island as a whole. The presence of pristine beaches, lush forests and a healthy, vibrant marsh are supported by strict regulations in areas such as minimal impact during development and the monitoring of lighting across the Island.

Because these principles are important to property owners, the Village of Bald Head Island is in the midst of applying for designation in the Audubon International's Sustainable Communities Program. This program helps communities take steps to ensure that they are healthy and vibrant places in which to live, work, and play – both today and tomorrow. That vision is founded in the three pillars of sustainability – a healthy local environment, quality of life for citizens and economic vitality. We are concerned about the visual impact that the placement of two wind farms containing several hundred wind turbines each could have on BHI's qualification for this distinguished designation.

In addition, the BHA is in the early phase of pursuing the International Dark Sky Association's Night Sky Designation. BHA absolutely believes that this designation will be easily attainable because the municipal lighting ordinances and the restrictions of our two organizations are more restrictive than the criteria for the Night Sky Designation.

For example, BHI has a naturally dark environment; streetlights are not a part of the Island's infrastructure. The oceanside of our community is devoid of permanent lighting and light pollution generated by individual property owners who own homes on and near the beaches is restricted, particularly during sea turtle nesting season between April and November. Residual ambient lighting from towers but especially from future wind development at the proposed Call Areas will affect the naturally dark skies and beaches that are extremely valued by visitors and property owners alike. A simulation of multiple lights blinking on at least two hundred turbines was not provided, but one can easily draw a mental image of that view since the turbines will only be 10nm and 15nm from the shore and easily viewable from BHI.

The Bald Head Island Conservancy provides well-attended nighttime programming that allows property owners and visitors the opportunity to experience firsthand BHI's active wildlife after dark, including bats, frogs, alligators, raccoons and bioluminescent plankton.



We are deeply concerned about the visual impact during the daytime hours and especially concerned that the loss of the darkened nighttime sky over the ocean near Bald Head Island and surrounding beaches will result in a loss of a connection to the natural world and one of the most splendid wonders on the planet.

### **Property Values**

The impact of wind energy development on coastal property values has not been sufficiently studied. Few studies provide insight on the impact of wind farms on the mainland and even fewer address the impact for island communities whose major source of recreation and tourism is the beach where the view is spoiled by the wind turbines.

It is our position that, given the location of the Call Areas, the property values of homes located along South Beach, which are located directly within the viewshed of the proposed sites, will be severely impacted by the loss of a primitive horizon view.

Like most other real estate markets in the United States, BHI is still recovering from the 2008/2009 market downturn and the visual impact of the turbines on the horizon – during the day and at night – will only serve to stagger property values along that crucial portion of the Island.

Clearly, maintaining property values is an obligation of any home owners' association. But, in the case of Bald Head Island, a reduction in property values will directly affect Brunswick County's revenue and ability to provide services to its constituents. Bald Head Island's property tax value is the largest in the county – just over \$1.3 billion in 2014. That same year, approximately \$8 million was paid in personal property taxes to support the county's services, such as emergency services, schools, libraries and the local hospital. This amount equates to approximately 8% of the county's entire annual budget.

Relocating those Call Areas to a site where the horizon falls off could be of great value in sustaining property values not just to the benefit BHI property owners but also to support the viability of many of Brunswick County's services.

### **Tourism**

As well, we are concerned that the visual impact of the Call Areas' locations will bleed into future revenue garnered by tourism. Approximately 40% of the homes on BHI are rentals that house thousands of tourists over the course of the summer season and beyond. Each year, the Island's population swells by an estimated 10,000 visitors. The accommodations taxes collected by vacationers equaled just over \$1 million in the last fiscal year. These funds are designated to help provide for future beach renourishment projects that benefit the Island as a whole. Sufficient research has not identified the impacts of regional tourism with regard to wind energy development nor do we understand the perceptions of tourists and their preferences of vacationing in an area with turbines located close to shore versus those without. Visitor spending is crucial to the sustainability of this community, helping subsidize amenities and services that are utilized by year-round property owners. Diminished scenic views and a decrease in the

number of visitors who value unobstructed views would not be in the Island's best interests. As stated earlier, relocation of the Call Areas at least 20nm could help eliminate the potential loss of rental revenue and still allow for wind energy development.

One of the Island's draws is its statuesque lighthouse, Old Baldy, which is located near the marina. Old Baldy is the oldest standing lighthouse in North Carolina and is listed on the National Register of Historic Places. It was built in 1817 and has maintained its original form and location for over 187 years. Old Baldy played an important role during both the Civil War and World War II all the while providing a marker for the Cape Fear River entrance to maritime sailors. It was deactivated and abandoned in 1935. To date, more than \$600,000 has been spent to preserve and maintain it with an emphasis on making it accessible to the public. In 2014, nearly 25,000 people visited the lighthouse – generating just over \$125,000 in climber revenue and more than \$161,000 in gift shop sales. Most lighthouse climbers visit the Island between early Spring and late Fall but research shows that many 'day-trippers' visit the Island during the off-season specifically to climb the lighthouse. Both of these types of visitors expect to see an expansive 360 degree view of the natural landscape of Bald Head Island and the Atlantic Ocean. Old Baldy is located within the viewshed of the proposed location for site characterization and site assessment activities. Additionally, future wind energy farms at the Wilmington West and Wilmington East Call Areas are proposed to be located just 10nm and 15nm, respectively, from shore. Like the Kitty Hawk Call Area, presence of these turbines could introduce visual elements that will diminish the characteristics of the property that contribute to its eligibility for listing in the National Register of Historic Places.

There are other concerns our organizations would like to relay, though they may be somewhat less compelling for the Island than the visual impact we describe above. Nonetheless, they are important and we propose them for your consideration:

- Cable route. Though we understand the cable route depicted in Figure 3.2 draws a hypothetical straight line from the center of the Wilmington East Call Area to a potential connection to Duke Progress Energy nuclear power plant on the mainland, property owners relay significant concern about interference with the Village of BHI's effort to protect the Island's beaches through the construction of a terminal groin to be located on South Beach in the area overlapping the hypothetical line. It is assumed that BOEM and the ultimate Call Area lessee(s) will work closely with the Village of BHI to ensure this community's private \$18 million investment is not undermined by the connecting cables or their installation.
- Marine navigation and safety. Concern exists among property owners about the impact of several hundred turbines located adjacent to the federal navigation channel just south of BHI. A 2012 report by the US Coast Guard recommended additional analysis be conducted to ensure the safety risk of the placement of wind facilities between 1nm and 5nm next to a navigation channel are within acceptable levels. There was no indication that factor was considered in the placement of the Wilmington Call Areas. There are several areas where marine navigation and safety is a concern:



- The 2011 National Offshore Wind Strategy states that "...It is possible that under certain conditions, offshore wind turbine arrays may cause electromagnetic or acoustic interference with specific electronic navigation, detection, or communication equipment. This potential for interference presents a serious concern for many stakeholders, including operators of commercial, recreational, and fishing vessels, the Department of Defense (DoD) and the Department of Homeland Security (DHS). While many potential electromagnetic interference issues will be similar to those associated with land-based wind systems, there are also circumstances unique to offshore facilities that may potentially affect equipment such as land-based radar, airborne radar, Automatic Identification Systems (AIS), Global Positioning Systems (GPS), shipboard radios, Sound Navigation & Ranging (SONAR) and Coastal Ocean Dynamics Applications Radar (CODAR). Therefore, additional research is needed to effectively assess any potential operational impacts, characterize the technical challenges and develop mitigation option...." In addition to the federal navigation channel, Southport Marina is a primary stop for recreational boaters transiting the Eastern seaboard. It would seem that future discussion of wind energy development in this area should be halted until this issue is studied and safety risks appropriately mitigated.
- Military Ocean Terminal Sunny Point is located near the entrance to the Cape Fear River. It is reportedly the largest ammunition port in the nation, serving as a transfer point for the import and export of weapons, ammunition, explosives and military equipment for the U.S. Army. Though officials will not confirm or deny whether nuclear weapons are on board, armed escorts occasionally halt river traffic to allow certain ships to and from the terminal. Property owners are deeply concerned about the risk of one of these ships colliding with a turbine. This would create an obstruction to the channel that would have national defense and national security implications, not to mention the fact that a blockage of any magnitude would adversely affect shipping into and out of the port of Wilmington impacting the state and regional economies.
- Effect on sea turtles. Concern among property owners with experience and devotion to conserving nesting sea turtles suggests that the noise and strobe lighting required with full development of the wind farms may disorient and/or drive away sea turtles from the Island. BHI has a 30-year history of sea turtle conservation and property owners want assurance that both the installation and existence of the turbines will not have a negative effect on the turtles who return to BHI each year to nest.
- Effect on migratory and colonial nesting birds. Bald Head Island is an important migratory path and foraging and nesting habitat for several bird species listed by the state of North Carolina as Threatened, Species of Special Concern, Significantly Rare or Watch List. One of these species is also listed as Federally Threatened. Concern has been expressed over the impact wind turbines may have on these classifications of the bird population, including ibis, anhingas, ducks, terns, painted buntings, plovers, oystercatchers and brown pelicans to name a few.



- Effect on North Atlantic Right Whales. On Friday, February 20, 2015, the National Oceanic and Atmospheric Administration (NOAA) issued a proposal to designate portions of the East Coast as critical habitat for North Atlantic Right Whales. Page 9331 of the Federal Register Notice states, "Therefore, these facilities may limit the availability of the essential features such that right whales are not able to move about, find and use the optimal combinations of the features necessary for successful calving and rearing. These are negative impacts on what makes these features essential to the conservation of the species. Therefore, we conclude the essential features for right whale calving habitat may require special management considerations or protections." It would seem beneficial for BOEM to consult with NOAA prior to moving forward and perhaps even give additional consideration to Alternative B, which eliminates the Wilmington West Call Area entirely, in conjunction with moving the East Call Area farther from shore.
- Trash and debris. As stated in the EA, there is the possibility for increased trash and debris to wash ashore as a result of increased vessel traffic during the numerous phases of data collection and construction of the turbines. BHI and the entire region take extraordinary care to ensure their beaches remain pristine and BHI property owners are concerned that additional vessel traffic will result in increased trash and debris on our shores.
- Oak Island Lighthouse navigation. The 169 feet tall Oak Island Lighthouse is positioned just across the channel entrance from BHI. It remains a working lighthouse whose light can be seen for 16 miles and serves to protect shipping traffic from the deadly Frying Pan Shoals. Property owners are concerned that the lighthouse's light may be blocked or the light refracted by the turbines in the Wilmington West Call Area since it is proposed to be located just 10nm from the shore in front of the lighthouse.

As stated in the Environmental Assessment, "the scenic and aesthetic values of these coastal areas play an important role in attracting visitors." Bald Head Island is the rule to this notion rather than the exception. We believe that the visual impacts of locating and leasing the proposed Call Areas just 10nm and 15nm from our shore could negatively impact property values and tourism. The construction of the future wind turbine farms in the proposed areas will only serve to spoil the view from the beaches and provide no local benefit to our collective property owners.

We respectfully request that the Wilmington West and Wilmington East Call Areas be relocated at least 20nm from shore (or more, depending on the height of the turbines) to eliminate the visual impact they will have on this community. Thank you.

Sincerely,



Kit Adcock  
President  
Bald Head Association



Trisha Barnard  
President  
Bald Head Island Stage II Association



# United States Department of the Interior

BUREAU OF OCEAN ENERGY MANAGEMENT  
WASHINGTON, DC 20240-0001

**OCT - 8 2014**

Ms. Renee Gledhill-Earley  
North Carolina State Historic  
Preservation Office  
4617 Mail Service Center  
Raleigh, North Carolina 27699-4617

Dear Ms. Gledhill-Earley:

On August 7, 2014, the Bureau of Ocean Energy Management (BOEM) announced the identification of three Wind Energy Areas (WEAs) located within federal waters offshore North Carolina. Designated in consultation with the North Carolina Renewable Energy Task Force, these WEAs represent areas of the Outer Continental Shelf (OCS) that appear most suitable for commercial wind energy activities, while presenting the fewest apparent environmental and user conflicts. BOEM is now reviewing the potential environmental impacts of leasing and site assessment activities under the National Environmental Policy Act and is initiating review under Section 106 of the National Historic Preservation Act for the undertaking of issuing leases within the North Carolina WEAs.

BOEM has executed two Programmatic Agreements that guide the bureau's Section 106 review of activities occurring under the renewable energy regulations on the OCS within the South Atlantic (See [www.boem.gov/offshore-windfarm-development](http://www.boem.gov/offshore-windfarm-development) and [www.boem.gov/South-Atlantic-PA-Executed](http://www.boem.gov/South-Atlantic-PA-Executed)). Under Stipulation I.C of these agreements, BOEM has contacted representatives of local governments, historic preservation groups, state recognized tribes, and other organizations to determine their interest in participating as a consulting party for the undertaking of issuing leases. BOEM is requesting any information you may have regarding other parties you believe should be included in the consultation process as per (36 CFR 800.3(f)).

Additionally, under Stipulation I.C of these agreements, BOEM is requesting any information your organization may have regarding historic properties that may be located within these WEAs. BOEM also invites comments regarding any other concerns that the proposed undertaking may raise in regards to historic preservation. Once consulting parties are identified and information is gathered regarding potential historic properties within the WEAs, BOEM will incorporate this information into a draft Finding document that will be shared with the parties per Stipulation I.E of the agreements.



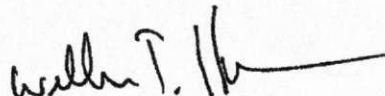
Information regarding the WEAs offshore North Carolina, including maps, is provided in the enclosed Announcement of Area Identification. Additional information regarding renewable energy activities offshore North Carolina is available online at: [www.boem.gov/State-Activities-North-Carolina](http://www.boem.gov/State-Activities-North-Carolina). Please review the information and send me any comments within 30 days of receipt of this correspondence.

If you have questions or require additional information, you may contact me at (703) 787-1549 or [William.Hoffman@boem.gov](mailto:William.Hoffman@boem.gov). Please send correspondence to the following address:

Bureau of Ocean Energy Management  
Office of Renewable Energy Programs  
381 Elden Street, HM1328  
Herndon, Virginia 20170-4817

Thank you in advance for your timely response and cooperation.

Sincerely,

A handwritten signature in black ink, appearing to read "William T. Hoffman", with a long horizontal flourish extending to the right.

William Hoffman  
Archaeologist

Enclosure





## United States Department of the Interior

BUREAU OF OCEAN ENERGY MANAGEMENT

WASHINGTON, DC 20240-0001

OCT 8 2014

Mr. Tom Bennett  
Mayor  
Town of Southern Shores  
218 Hillcrest Drive  
Southern Shores, North Carolina 27949

Dear Mayor Bennett:

On August 7, 2014, the Bureau of Ocean Energy Management (BOEM) announced the identification of three Wind Energy Areas (WEAs) located within federal waters on the Outer Continental Shelf (OCS) offshore the coast of North Carolina. These WEAs were designated in consultation with the North Carolina Renewable Energy Task Force and other federal agencies as part of the bureau's initiative to identify areas of the OCS that are most suitable for offshore renewable energy development. BOEM is now considering these WEAs for commercial leasing and is reviewing the potential environmental impacts of leasing and site assessment activities under the National Environmental Policy Act and other regulations. Information regarding the WEAs offshore North Carolina, including maps, is provided in the Announcement of Area Identification. Additional information regarding renewable energy activities offshore North Carolina is available online at: [www.boem.gov/State-Activities-North-Carolina](http://www.boem.gov/State-Activities-North-Carolina).

Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties. BOEM has executed a Programmatic Agreement with the Advisory Council on Historic Preservation and the North Carolina State Historic Preservation Officer to guide the bureau's Section 106 review of activities occurring under the renewable energy regulations on the OCS offshore North Carolina (See <http://www.boem.gov/offshore-windfarm-development>). Per this agreement, BOEM is initiating Section 106 review for the undertaking of issuing leases within these WEAs.

As part of initiating its Section 106 review, BOEM is contacting representatives of local governments, historic preservation groups, and other organizations to determine their interest in participating as a consulting party for the undertaking of issuing leases. A commercial lease gives the lessee the exclusive right to subsequently seek BOEM approval for the development of the leasehold. The lease does not grant the lessee the right to construct any facilities; rather, the lease grants the lessee the right to use the leased area to develop its plans, which BOEM must approve before the lessee can move on to the next stage of the process. A separate project-specific Section 106 review would take place in the future, should a lessee submit a plan.

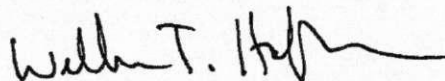
BOEM requests that you send written notification if you are interested in participating as a consulting party in the Section 106 review for the issuance of leases within these WEAs.

Email is acceptable and may be forwarded to my attention. If your organization has information pertaining to historic properties that may be affected by the proposed undertaking, BOEM invites you to bring this information to the agency's attention to be considered in the decision-making process. BOEM also invites comments regarding any other concerns the proposed undertaking may raise in regards to historic preservation. If you have questions or require additional information, you may contact me at (703) 787-1549 or [William.Hoffman@boem.gov](mailto:William.Hoffman@boem.gov). Please send correspondence to the following address:

Bureau of Ocean Energy Management  
Office of Renewable Energy Programs  
381 Elden Street, HM1328  
Herndon, Virginia 20170-4817

Thank you in advance for your timely response and cooperation. I look forward to receiving your reply within 30 days of receipt of this correspondence.

Sincerely,

A handwritten signature in black ink, appearing to read "William T. Hoffman", with a stylized flourish at the end.

William Hoffman  
Archaeologist

Enclosure



**Hoffman, William** <william.hoffman@boem.gov>

---

**ACHP response to consulting party invitation**

1 message

**Najah Duvall-Gabriel** <ngabriel@achp.gov>

Tue, Nov 25, 2014 at 10:56 AM

To: William Hoffman &lt;william.hoffman@boem.gov&gt;

Cc: "Caroline D. Hall" &lt;chall@achp.gov&gt;, Tom McCulloch &lt;tmcculloch@achp.gov&gt;

Dear Mr. William Hoffman:

The Advisory Council on Historic Preservation (ACHP) received your invitation to become a consulting party in the Section 106 review for the issuance of leases within the Wind Energy Areas (WEAs) of North Carolina. We do not believe that our participation in the consultation is needed at this time, nor do we have any information regarding historic properties that may be located within the North Carolina WEAs.

However, if we receive a request for participation from the State Historic Preservation Officer, Tribal Historic Preservation Officer, affected Indian tribe, a consulting party, or other party, we may reconsider our decision. Additionally, should circumstances change, and you determine that our participation is needed to conclude the consultation process, please notify us.

Thank you,

Najah Duvall-Gabriel  
Historic Preservation Specialist

Advisory Council on Historic Preservation  
401 F Street NW  
Suite 308  
Washington, DC 20001-2637  
(202) 517-0210

New ACHP Guidance on Agreement Documents now available at:  
<http://www.achp.gov/agreementdocguidance.html>





RECEIVED

DEC 12 2014

Office of Renewable  
Energy Programs

**North Carolina Department of Cultural Resources  
State Historic Preservation Office**

Ramona M. Bartos, Administrator

Governor Pat McCrory  
Secretary Susan Kluttz

Office of Archives and History  
Deputy Secretary Kevin Cherry

December 9, 2014

William Hoffman  
Bureau of Ocean Energy Management  
Office of Renewable Energy Programs  
381 Elden Street, HM1328  
Herdon, VA 20170-4817

Re: Three Wind Energy Areas Within Federal Waters Offshore North Carolina, Multi County, ER 14-2355

Dear Mr. Hoffman:

Thank you for your letter of October 8, 2014, concerning the above project.

We have conducted a review of the project and are aware of no historic resources which would be affected by the project. Therefore, we have no comment on the project as proposed.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919-807-6579 or [environmental.review@ncdcr.gov](mailto:environmental.review@ncdcr.gov). In all future communication concerning this project, please cite the above referenced tracking number.

Sincerely,

A handwritten signature in cursive script that reads "Renee Gledhill-Earley".

for Ramona M. Bartos

RECEIVED

OCT 27 2014

Office of Renewable  
Energy Programs

October 22, 2014

William Hoffman  
Archaeologist  
Bureau of Ocean Energy Management  
Office of Renewable Energy Programs  
381 Elden Street, HM1328  
Herndon, VA 20170-4817



Re: Identification of Three Wind Energy Areas (WEAs), offshore North Carolina  
SHPO Project No. 14-EJ0063

Dear Mr. Hoffman:

Thank you for your letter of October 8, which we received on October 14, regarding the identification of three Wind Energy Areas (WEAs) located within the federal waters offshore North Carolina. We also received the Announcement of Area Identification as supporting documentation for this undertaking. The State Historic Preservation Office is providing comments to BOEM pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR 800. Consultation with the SHPO is not a substitution for consultation with Tribal Historic Preservation Offices, other Native American tribes, local governments, or the public.

Since two of the WEAs – Wilmington West and Wilmington East are near the South Carolina-North Carolina line, we suggest reaching out to local historical groups in Horry County. A list of can be found on our website [http://shpo.sc.gov/pubs/Documents/Local\\_History\\_Organizations\\_Directory.pdf](http://shpo.sc.gov/pubs/Documents/Local_History_Organizations_Directory.pdf). Horry County is also a Certified Local Government. The staff liaison for the Board of Architectural Review is Adam Emrick, Senior Planner.

Because the areas are located offshore of North Carolina, our office does not have information regarding historic properties located within these WEAs. For information about historic properties located in Horry County, please use our online GIS system, ArchSite, <http://archsite.cas.sc.edu/ArchSite/>. A digital copy of the recent Horry County historic property survey (2009) is also on our website <http://shpo.sc.gov/research/Pages/conreps.aspx>.

We look forward to ongoing consultation on this project. If you have any questions, please contact me at (803) 896-6168 or [emjohnson@scdah.state.sc.us](mailto:emjohnson@scdah.state.sc.us).

Sincerely,

Elizabeth M. Johnson  
Director, Historical Services, D-SHPO  
State Historic Preservation Office